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BASIC DATA ON METABOLIC PATTERNS

In 7- to 10-Year-Old Girls
in
Selected Southern States

Home Economics Research Report 33

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Agricultural Research Service
UNITED STATES DEPARTMENT OF AGRICULTURE

in cooperation with

Agricultural Experiment Stations of
Georgia, Kentucky, Louisiana, Mississippi,
Oklahoma, Tennessee, and Virginia

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---

[1] Deceased.

BASIC DATA ON METABOLIC PATTERNS In 7- to 10-Year-Old Girls in Selected Southern States

By Elsie Z. Moyer and M. Isabel Irwin

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BASIC DATA ON METABOLIC PATTERNS

In 7- to 10-Year-Old Girls in Selected Southern States

By Elsie Z. Moyer[2] and M. Isabel Irwin, *Human Nutrition Research Division, Agricultural Research Service*

INTRODUCTION

Requirements for essential nutrients have not been so well defined for preadolescent children as for other population groups. Because of this gap in current knowledge, the State agricultural experiment stations of Georgia, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, and Virginia in the Southern Region and the Human Nutrition Research Division, Agricultural Research Service, U.S. Department of Agriculture, undertook a series of cooperative metabolic studies with healthy preadolescent girls maintained on controlled diets. The objectives of these studies were: (1) to investigate the metabolic patterns of preadolescent children; (2) to determine more precise standards than now exist for selected nutrient requirements for this age group; and (3) to determine interrelationships of selected nutrients within the metabolic process.

Within a 5-year period, a series of four studies was conducted with a total of 36 healthy girls, 7 to 10 years of age (table 1). The cooperating laboratories shared the workload in conducting the studies as well as in the analytical work. A detailed description of each of the studies, the calculated nutrient content of the controlled diets and of diets consumed at home during 14-day periods before the studies, the selection and management of the subjects, the sampling procedures used, and other pertinent information relative to the metabolic studies have been published in Southern Cooperative Series Bulletin No. 64 (*46*).[3]

When the analytical phase of the studies with the 36 preadolescent girls was completed, a series of papers was prepared for presentation at a symposium (*13; 20; 27; 29; 39*). Reports of certain phases of the research studies were presented before professional societies (*28, 33, 44*), and one report on the nitrogen balance data was presented at the 1960 International Congress on Nutrition (*41*). A number of papers dealing with certain nutrients have been published in technical journals (*1; 9; 16; 19; 31; 34; 43; 45; 48*) or as station bulletins (*30, 42*).

To supplement the condensed data published in technical reports and planned for publication

Table 1.—*Location and duration of each study, number and mean age of subjects, and the diets used*

Year of study	Location	Number and length of metabolic periods [1]	Subjects (girls) Number	Mean age		Diet No.[2]	Chief variable protein intake
				Yr.	*Mo.*		*Grams/day*
1954	Tennessee	16 4-day	6	7	10	1	60 g., recommended level for children 7–9 years of age (*32*).
	Louisiana	16 4-day	5	8	2	1	
1956	Virginia	14 4-day	12	8	4	2, 3, 4, 5	2 g. or 3 g./kg. body weight (adjusted for small and large body size).
1957	Virginia	4 6-day	10	9	3	6, 7	1.25 g./kg. body weight (below recommended level).
1958	Virginia	8 6-day	13	8	1	8, 8′	<1 g./kg. body weight.

[1] All periods in each year were consecutive.
[2] Amounts of food in the daily menus for each diet are given in appendix tables 22 to 25.

---

[2] Deceased July 1, 1965.
[3] Italic numbers in parentheses refer to Literature Cited, p. 146.

for the series of studies, the Human Nutrition Research Division, Agricultural Research Service, U.S. Department of Agriculture, has assembled all the detailed data for publication in this report. This combined longitudinal data collected on four cooperative studies makes available observations on metabolic behavior for each of 36 healthy girls, 7 to 10 years of age, for a total of some 2,200 subject days. The detailed data may be used to study metabolic behavior and nutritional interrelationships for individual children and for groups of children maintained on the same diet or on different diets. The detailed data will be useful also as guidelines in planning future studies in human nutrition and in evaluating data as they are accumulated for more individuals.

Staff at the several stations who participated in the studies have given assistance in bringing the data together in tabular form. Most of the work for obtaining computed values for means, standard deviations (S.D.), and coefficients of variation (C.V.) shown in the tabular material was a contribution from the Department of Food Science and Technology, Louisiana State University.

PLAN OF STUDIES

1954 Study

This study was conducted to investigate the metabolic patterns on a multinutrient basis of preadolescent girls maintained on controlled diets that provided nutrients at the levels recommended in 1953 by the Food and Nutrition Board of the National Research Council (*32*). Collections of food and biological materials were made during 16 consecutive 4-day metabolic periods, a total of 64 days.

The feeding regimen was carried out at two locations; namely, at the Tennessee Agricultural Experiment Station with six girls (subjects 1–6) and at the Louisiana Agricultural Experiment Station with five girls (subjects 7–11). Each group of girls was housed together for the duration of the study. The girls ranged in age from 7 years, 5 months to 8 years, 7 months and in weight from 22.4 kg. to 34.3 kg. (49.4 to 75.4 lb.) except one girl who weighed 42.7 kg.

The controlled diet was made up of ordinary foods usually acceptable to preadolescent children. Four daily menus were used in the same sequence for each metabolic period. The recipes used in food preparation are given in appendix table 26. The kinds and amounts of foods served daily (diet 1) are listed in appendix table 22. Each menu was calculated to provide each subject with about 2,000 Cal. and 60 g. of protein daily.

In Louisiana, tapwater containing only 1 p.p.m. of calcium and 0.04 p.p.m. of magnesium was used for drinking and cooking. For the Tennessee subjects, an ion exchange system (permutite) was installed in the house in which the subjects lived.

1956 Study

This study, conducted at the Virginia Agricultural Experiment Station, was designed to determine the metabolic patterns for a number of nutrients when the energy and protein contents of the diet were adjusted on the basis of body weight. Collections of food and biological materials were made during 14 consecutive 4-day metabolic periods, a total of 56 days. The plan of the study with regard to energy and protein intake (calculated values) for six girls of small body size and six girls of large body size is given in table 2. The six small girls ranged in age from 7 years, 7 months to 9 years and in weight from 22.1 kg. to 27.4 kg. (48.7 to 60.4 lb.). The six large girls ranged in age from 6 years, 10 months to 9 years, 1 month and in weight from 29.9 kg. to 33.6 kg. (65.9 to 74.1 lb.).

TABLE 2.—*Energy and protein intake for the 12 girls in the 1956 metabolic study*

Subject No.	Body size	Energy	Protein	Protein/kg. body weight	Diet No.
		Cal.	*Grams*	*Grams*	
12, 13, 14	Small	1,850	48	2	2
15, 16, 17	Small	1,850	73	3	3
18, 19, 20	Large	2,250	58	2	4
21, 22, 23	Large	2,250	89	3	5

The kinds and amounts of ordinary foods used in each of the four diets are listed in appendix table 23, and the recipes used are given in appendix table 26. Bread containing 4 percent dry skim milk solids was baked in advance and frozen. Bread for diets 2 and 4 was enriched with calcium, phosphorus, iron, thiamine, riboflavin, and niacinamide; bread for diets 3 and 5 was unenriched. Some of the protein in diets 3, 4, and 5 was furnished by gelatin, hydrolyzed with fresh pineapple juice or papain, and dissolved in a beverage containing Kool Aid. Sugar was added likewise to increase the energy content as needed for each of the diets. All water used for drinking and cooking was demineralized by a zeolite exchange unit installed in the water system of the house in which the subjects lived together for the duration of the study.

1957 Study

This study, conducted by staff of the Virginia Agricultural Experiment Station, was made to determine the metabolic patterns for nitrogen and several selected nutrients when the protein

($N \times 6.25$) in the diet was reduced to less than the recommended level, about 1.25 g. per kilogram of body weight daily, and all other nutrients in the diet were at recommended levels (*32*). The results obtained were to serve as a guide in planning for the 1958 study. The study consisted of four consecutive 6-day balance periods. Nine of the 10 girls who participated in the 1957 study also served as subjects in the 1956 study.

The 10 girls (subjects 12–15, 17, 19, 21–23, and 36) ranged in age from 8 years, 7 months to 10 years and in weight from 24.7 kg. to 37.7 kg. (54.5 to 83.0 lb.).

Based on the foods selected and eaten by each girl during a 4-day pilot period, two series of menus were formulated (diets 6 and 7, appendix table 24). Each diet provided daily about 1.25 g. of protein per kilogram of body weight. Diet 6, calculated to furnish each girl 2,000 Cal. and 35 g. of protein daily, was served to the six girls of small body size, average weight 28 kg. Diet 7, calculated to furnish each girl 2,500 Cal. and 45 g. of protein, was served to the four girls of large body size, average weight 36 kg. Ordinary foods similar to those in the 1956 study were used except that some supplementation with calcium, phosphorus, iron, thiamine, riboflavin, and niacin was necessary to achieve recommended levels of these nutrients. This was accomplished by enrichment of the bread and by the inclusion of calcium and phosphorus salts in the recipe for fondant (appendix table 26). Tapwater used in food preparation and for drinking was demineralized, as in the previous study.

1958 Study

This study, conducted at the Virginia Agricultural Experiment Station, was made to determine metabolic patterns in preadolescent girls when the daily dietary protein was reduced to less than 1 g. per kilogram of body weight and when other dietary constituents were held at recommended levels (*32*). It was of particular interest to determine also whether or not additional energy would "spare" protein as measured by the nitrogen balance technique. The study was initiated with a 2-day adjustment period followed by eight consecutive 6-day balance periods.

Thirteen girls (subjects 12 and 24–35) participated in the study. They ranged in age from 6 years, 8 months to 9 years, 7 months and in weight from 21.9 kg. to 34.1 kg. (48.2 to 75.0 lb.).

The nitrogen and gross energy content of the basal diet (diet 8) was determined by analyses prior to the initiation of the metabolic study because, in view of the experimental objective, the levels of protein and energy were of particular importance. Diet 8, as analyzed before initiation of the study, supplied 22.1 g. of protein ($N \times 6.25$) and 2,200 Cal. daily. At the beginning of period 6, the protein content of the diet was reduced to about 18 g. (diet 8′) by omitting the milk from diet 8. The kinds and amounts of foods served daily in diets 8 and 8′ are listed in appendix table 25, and the recipes used are given in appendix table 26. As in previous studies, the tapwater used for food preparation and drinking was demineralized with the zeolite system installed at the central location.

In the 1958 study, it was planned to increase the food energy with fondant by about 200 Cal. daily for any subject if the minimum daily nitrogen storage fell below 0.3 g. This occurred in only 1 (subject 35) of the 13 girls receiving diet 8, which provided about 3.52 g. of nitrogen daily. Supplementary calories failed to restore nitrogen retention in subject 35 to the minimum level of 0.3 g. daily over a period of 4 days. Her diet was supplemented with skim milk to raise the nitrogen content of the diet to 4.02 g. daily. This amount of nitrogen was sufficient to maintain her daily nitrogen retention at about 0.4 g. On the lowered protein intake (diet 8′), two of the girls (subjects 25 and 30) failed to retain the minimum of 0.3 g. of nitrogen daily (period 6). Supplementary food energy during periods 7 and 8 restored their nitrogen retention to a level of 0.37 g. daily. The other 10 girls retained at least 0.3 g. of nitrogen daily when maintained on diet 8′ with 18 g. of protein.

When dietary protein was low, the problem of maintaining other nutrients at recommended levels was overcome by: (1) the addition of monocalcium orthophosphate to the recipes for pineapple tapioca, grape juice tapioca, applesauce cookies, molasses cookies, plain cake, and sherbet; (2) the enrichment of bread with calcium, phosphorus, iron, thiamine, riboflavin, and niacin (recipes, appendix table 26); (3) the supplementation of cream with Dristol[4] to supply 400 International Units (I.U.) of vitamin D daily; and (4) the supplementation of minerals and vitamins in capsule form. The formula for the encapsulated vitamin-mineral supplement given in the 1958 study at mealtime to each girl three times per day follows below.[5]

Constituent:	*Amounts per capsule, mg.*
$Ca(H_2PO_4)_2$	718. 00
$FePO_4.4H_2O$	. 40
Thiamine	. 05
Riboflavin	. 20
Niacin	. 10
Ascorbic acid	1. 00

---

[4] Calciferol (vitamin D_2).

[5] This supplement supplied the following percentages of the daily intake: calcium, 38.8; phosphorus, 45.4; thiamine, 14.2; riboflavin, 38.2; and less than 5 percent each of iron, niacin, and ascorbic acid. During period 5, this formula was diluted with an equal amount of lactose to facilitate absorption and utilization. Each subject received two capsules of the diluted formulation.

MEASUREMENTS MADE IN THE METABOLIC STUDIES

The participating State agricultural experiment stations and the Human Nutrition Research Division, Agricultural Research Service, U.S. Department of Agriculture, shared responsibility for conducting the studies and for performing the analytical work. The measurements made in each of the four metabolic studies, the table in which the data are reported, the materials analyzed, year analyzed, and the participating laboratories are indicated in table 3.

TABLE 3.—*Measurements made in each of the 4 metabolic studies, 1954–58*

Measurement	Table No.	Biological materials				Year of metabolic study				Participating laboratories
		Food	Feces	Urine	Blood	1954	1956	1957	1958	
Physical measurements of subjects—age, height, weight, body surface.	4	------	------	------	------	X	X	X	X	Louisiana, Tennessee, Virginia.
Skeletal measurements of subjects:										
Bone density	5	------	------	------	------	X	X	------	X	Do.
Skeletal development	5	------	------	------	------	X	X	------	------	Do.
Energy expenditure:										
Basal metabolic rate	6	------	------	------	------	X	X	X	X	Do.
Basal energy expenditure.	6	------	------	------	------	X	X	X	X	Do.
Hemoglobin	7	------	------	------	X	X	X	X	X	Do.
Red blood cell count	7	------	------	------	X	------	------	X	X	Virginia.
Hematocrit	7	------	------	------	X	------	------	------	X	Do.
Protein-bound iodine	7	------	------	------	X	------	X	------	X	Do.
Dry matter	8	X	X	X	------	X	X	X	X	Louisiana, Tennessee, Virginia.
Volume	8	------	------	X	------	X	X	X	X	Do.
pH	8	------	------	X	------	X	X	X	X	Do.
Wet weight	8	------	X	------	------	X	X	X	X	Do.
Energy	9	X	X	X	------	X	X	X	X	Louisiana.
Fat	9	X	X	X	------	X	X	X	X	Human Nutrition Research Division.
Nitrogen	9	X	X	X	------	X	X	X	X	Louisiana,[1] Virginia.
Amino acids [2]:										
In food	10	X	------	------	------	X	X	X	X	Georgia, Mississippi.
In urine	10	------	------	X	------	X [3]	X	------	X	Oklahoma, Tulane.[4]
Serum proteins	11	------	------	------	X	------	------	------	X	Virginia.
Vitamin A	12	------	------	------	X	------	X	------	X	Louisiana.
Carotene	12	------	------	------	X	------	X	------	X	Do.
Thiamine	13	------	------	------	X	------	X	------	X	Kentucky.
Do	14	X	X	X	------	X	X	------	X	Do.
Riboflavin	13	------	------	------	X	------	X	------	X	Do.
Do	14	X	X	X	------	X	X	------	X	Do.
Folic acid	14	X	------	X	------	X	X	------	X	Human Nutrition Research Division.
Pantothenic acid	14	X	------	X	------	X	X	------	X	Do.
Vitamin B_{12}	15	X	------	X	------	------	------	------	X	Do.
Niacin	16	X	------	X	------	X	X	------	X	Georgia,[5] Tulane [4] [5]
N^1-methylnicotinamide	16	------	------	X	------	X	X	------	X	Tulane.[4]
N^1-methyl-2-pyridone-5-carboxamide.	16	------	------	X	------	X	X	------	X	Do.[4]
Quinolinic acid	16	------	------	X	------	X	X	------	X	Do.[4]
Calcium	17	X	X	X	------	X	X	X	X	Georgia,[6] Tennessee.
Phosphorus	17	X	X	X	------	X	X	X	X	Georgia,[6] Tennessee.
Magnesium	17	X	X	X	------	X	X	X	X	Georgia,[6] Tennessee.
Iron	18	X	X	------	------	------	X	------	X	Georgia.
Cobalt	18	X	X	X	------	------	X	------	X	Virginia.
Copper	18	X	X	X	------	------	X	------	X	Do.
Manganese	19	X	X	------	------	------	X	------	X	Do.
Molybdenum	19	X	X	X	------	------	X	------	X	Do.
Zinc	19	X	X	X	------	------	X	------	X	Do.
Sulfur	20	X	X	X	------	------	------	------	X	Louisiana.

---

[1] Nitrogen was determined by the Louisiana Agricultural Experiment Station in 1954 only.

[2] Amino acids on which determinations were made: arginine, cystine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, tyrosine, valine, and glutamic acid.

[3] Tryptophan only.

[4] Determinations of the urinary excretion of tryptophan and of niacin and its metabolites were made in the Tulane University laboratories under U.S. Department of Agriculture contracts sponsored by the Human Nutrition Research Division.

[5] Niacin in food was determined by the Georgia Agricultural Experiment Station and nicotinic acid in urine was determined by Tulane University under contract with the Human Nutrition Research Division, Agricultural Research Service.

[6] Determinations made by the Georgia Agricultural Experiment Station in 1954 only.

METHODS USED IN THE ANALYSES

Determination and method	Reference
Calories, Adiabatic bomb calorimeter.	Daniels (*14*) and Emerson Apparatus Co. (*17*)
Creatinine:	
Colorimetric	Clark and Thompson (*10*)
Folin micro method	Hawk, Oser, and Summerson (*21, pp. 900–902*)
Nitrogen, Kjeldahl-Gunning-Arnold.	AOAC (*2, p. 26*)
Amino acids:	
In food:	
Colorimetric	Horn and Jones (*23*)
Microbiological	Horn and Blum (*22*) Horn, Jones, and Blum (*24*) Block and Weiss (*7*)
In urine, microbiological.	Sarett and Goldsmith (*38*) (tryptophan)
Fat, gravimetric	AOAC Acid Hydrolysis (*4, pp. 210–211*) (For food slurries, modified by treating with yeast to ferment out the sugar)
Vitamin A	Bessey and others (*6*)
Carotene	Bessey and others (*6*)
Thiamine	Conner and Straub (*11*)
Riboflavin	Conner and Straub (*12*)
Folic acid, microbiological.	Toepfer and others (*47*)
Pantothenic acid, microbiological.	Zook, MacArthur, and Toepfer (*50*).
Vitamin B_{12}, microbiological.	AOAC (*4, pp. 835–838*)
Niacin:	
In food	Assoc. Vitamin Chemists (*5, pp. 180–184*).
In urine, microbiological.	Krehl, Strong, and Elvehjem (*26*) (nicotinic acid)
N^1-methylnicotinamide, fluorometric.	Huff and Perlzweig (*25*), modified.
Quinolinic acid, microbiological.	Sarett (*37*)
N-methyl-2-pyridone-5-carboxamide, colorimetric.	Price (*36*)
Calcium, gravimetric	AOAC (*3, p. 97*)
Phosphorus, colorimetric	AOAC (*3, p. 104*)
Magnesium, colorimetric	AOAC (*4, p. 102*) Young and Gill (*49*) Andrews, E. L.[1]
Iron	Sheets and Ward (*40*)
Cobalt	AOAC (*4, p. 106*)
Copper	AOAC (*4, pp. 402–403*)
Manganese	AOAC (*4, p. 102*)
Molybdenum	Evans, Purvis, and Bear (*18*)
Zinc	AOAC (*4, p. 452*)
Sulfur	Piper (*35, pp. 300–301*)

DATA FOR 36 HEALTHY GIRLS

In the following tables are listed the detailed data from the four controlled metabolic studies as well as data on certain physical measures for each girl. Nine of 36 girls participated in two studies, and 1 of the 9 girls participated in three studies.

---

[1] ANDREWS, E. L. A THIAZOLE YELLOW METHOD FOR MAGNESIUM DETERMINATION IN HUMAN BALANCE STUDIES. 1960. [Unpublished master's thesis. Univ. Tenn.]

TABLE 4.—PHYSICAL MEASUREMENTS: *Age, height, weight, and body surface area for preadolescent girls in 4 metabolic studies*

[1954, 1956, 1957, 1958]

Year, location, diet, and subject	Initial age		Height			Weight			Body surface area [1]	
			Initial	Final	Difference	Initial	Final	Difference	Initial	Final
1954										
SIXTEEN 4-DAY PERIODS										
TENNESSEE:										
Diet 1:	*Yr.*	*Mo.*	*Cm.*	*Cm.*	*Cm.*	*Kg.*	*Kg.*	*Kg.*	$M.^2$	$M.^2$
Subject 1	7	11	120. 6	126. 4	5. 8	24. 4	26. 0	1. 6	0. 907	0. 955
2	8	0	123. 2	123. 8	. 6	25. 2	25. 5	. 3	. 924	. 930
3	7	6	124. 5	124. 5	0	22. 4	22. 3	—. 1	. 894	. 888
4	8	0	128. 3	130. 8	2. 5	32. 7	32. 7	0	1. 055	1. 083
5	7	5	130. 8	132. 7	1. 9	30. 3	31. 4	1. 1	1. 040	1. 077
6	8	0	123. 8	126. 4	2. 6	28. 6	30. 0	1. 4	. 989	1. 018
LOUISIANA:										
Diet 1:										
Subject 7	7	11	122. 7	124. 0	1. 3	27. 5	30. 0	2. 5	. 960	1. 004
8	7	11	134. 0	134. 9	. 9	42. 7	41. 4	—1. 3	1. 234	1. 223
9	8	7	132. 5	133. 6	1. 1	34. 3	35. 7	1. 4	1. 115	1. 140
10	7	11	129. 0	130. 8	1. 8	23. 6	24. 8	1. 2	. 933	. 962
11	8	4	128. 5	129. 0	. 5	33. 2	33. 9	. 7	1. 046	1. 087
11 subjects:										
Mean	7	11	127. 1	128. 8	1. 7	29. 5	30. 3	. 8	1. 009	1. 033
S.D.			4. 2	4. 1		6. 0	6. 1		. 103	. 099
C.V. (%)			3	3		20	20		10	10
1956										
FOURTEEN 4-DAY PERIODS										
VIRGINIA:										
Diet 2:										
Subject 12	7	7	118. 7	119. 4	0. 7	22. 1	22. 9	0. 8	0. 855	0. 871
13	8	4	132. 1	133. 4	1. 3	25. 0	25. 6	. 6	. 972	. 987
14	9	0	126. 4	128. 9	2. 5	24. 8	25. 3	. 5	. 940	. 961
Diet 3:										
Subject 15	7	10	127. 6	129. 5	1. 9	26. 3	27. 0	. 7	. 970	. 987
16	8	4	125. 7	127. 0	1. 3	27. 2	27. 6	. 4	. 973	. 984
17 [2]	8	6	132. 1	133. 4	1. 3	27. 4	27. 6	. 2	1. 012	1. 018
Diet 4:										
Subject 18	6	10	122. 6	123. 8	1. 2	29. 9	30. 8	. 9	. 995	1. 012
19	8	9	135. 9	137. 8	1. 9	31. 4	32. 4	1. 0	1. 095	1. 118
20	9	1	136. 5	137. 2	. 7	31. 1	33. 2	2. 1	1. 093	1. 124
Diet 5:										
Subject 21	9	0	145. 4	146. 7	1. 3	31. 4	31. 8	. 4	1. 149	1. 159
22	7	10	135. 3	137. 2	1. 9	33. 6	33. 9	. 3	1. 122	1. 134
23	8	6	133. 4	134. 6	1. 2	31. 9	34. 4	2. 5	1. 087	1. 121
12 subjects:										
Mean	8	4	131. 0	132. 4	1. 4	28. 5	29. 4	. 9	1. 022	1. 040
S.D.			7. 2	7. 3		3. 6	3. 8		. 087	. 089
C.V. (%)			6	6		13	13		8	8

See footnotes at end of table, p. 8.

TABLE 4.—PHYSICAL MEASUREMENTS: *Age, height, weight, and body surface area for preadolescent girls in 4 metabolic studies*—Continued

[1954, 1956, 1957, 1958]

Year, location, diet, and subject	Initial age		Height			Weight			Body surface area [1]	
			Initial	Final	Difference	Initial	Final	Difference	Initial	Final
1957										
FOUR 6-DAY PERIODS										
VIRGINIA:										
Diet 6:	*Yr.*	*Mo.*	*Cm.*	*Cm.*	*Cm.*	*Kg.*	*Kg.*	*Kg.*	*M.*^{2}	*M.*^{2}
Subject 12	8	7	123.2	123.8	0.6	24.7	25.9	1.2	0.920	0.942
13	9	4	138.4	138.4	0	27.7	29.0	1.3	1.052	1.072
14	10	0	133.4	133.4	0	27.6	29.0	1.4	1.022	1.043
15	8	10	134.6	135.3	.7	30.1	31.0	.9	1.068	1.085
17	9	6	141.0	141.9	.9	31.6	32.7	1.1	1.127	1.149
36	8	10	132.1	132.1	0	25.9	27.3	1.4	.988	1.010
Diet 7:										
Subject 19	9	9	143.5	147.6	4.1	34.7	35.2	.5	1.188	1.220
21	10	0	150.5	151.8	1.3	35.2	35.4	.2	1.237	1.247
22	8	10	141.0	141.9	.9	37.7	37.3	—.4	1.214	1.214
23	9	6	139.1	139.1	0	35.7	37.2	1.5	1.176	1.196
10 subjects:										
Mean	9	3	137.7	138.5	.8	31.1	32.0	.9	1.099	1.118
S.D	--------	--------	7.4	8.1	--------	4.6	4.2	--------	.106	.102
C.V. (%)	--------	--------	5	6	--------	15	13	--------	10	9
1958										
EIGHT 6-DAY PERIODS										
VIRGINIA:										
Diets 8 and 8′:										
Subject 24	7	2	120.7	120.7	0	21.9	23.5	1.6	0.862	0.888
25	7	10	137.2	138.4	1.2	34.1	34.1	0	1.141	1.148
26	6	8	121.3	122.6	1.3	23.1	25.1	2.0	.885	.923
27	7	0	128.3	128.3	0	23.8	25.9	2.1	.933	.967
28	7	7	123.8	124.5	.7	24.0	26.0	2.0	.912	.948
29	8	1	128.9	129.5	.6	27.7	28.6	.9	.999	1.016
30	7	9	132.1	132.7	.6	26.5	27.2	.7	.997	1.012
31	7	10	128.3	129.5	1.2	26.9	29.1	2.2	.983	1.023
32	9	3	127.0	127.0	0	28.5	29.9	1.4	1.000	1.021
33	8	2	133.4	134.0	.6	29.0	30.0	1.0	1.043	1.063
34	9	0	132.1	132.7	.6	30.5	32.0	1.5	1.059	1.084
35	9	1	135.3	135.9	.6	34.1	34.3	.2	1.129	1.136
12 [2]	9	7	--------	129.5	--------	27.7	27.8	.1	1.002	1.003
13 subjects:										
Mean	8	1	129.0	129.6	.6	27.5	28.7	1.2	.996	1.018
S.D	--------	--------	5.3	5.2	--------	3.8	3.3	--------	.085	.077
C.V. (%)	--------	--------	4	4	--------	14	12	--------	8	8

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[1] Calculated by the formula of DuBois and DuBois (*15*): $A = W^{0.425} \times H^{0.725} \times 71.84$, where A = surface area in cm.^{2}, W = weight in kg., and H = height in cm., using heights and weights taken at the time metabolic rates were determined.

[2] Entered study at end of period 4.

Table 5.—SKELETAL MEASUREMENTS: *Bone density and skeletal development for preadolescent girls in 3 metabolic studies*

[1954, 1956, 1958]

Year, location, and subject	Bone density coefficient			Skeletal development				
	Initial	Final	Change	Chronological age at X-ray		Skeletal age at X-ray		Grade [1]
1954								
SIXTEEN 4-DAY PERIODS								
Tennessee:				*Yr.*	*Mo.*	*Yr.*	*Mo.*	
Subject 1	0.69	0.69	0	8	0	8	5	o.s.
2	.86	.88	0.02	7	10	7	4	sl.—
3	.70	.62	—.08	7	5	7	5	o.s.
4	.76	.67	—.09	8	2	8	11	o.s.
5	.61	.38	—.23	7	7	7	4	o.s.
6	.87	.89	.02	8	1	7	9	o.s.
Mean	.75	.69						
S.D	.10	.19						
C.V.(%)	13	28						
Louisiana:								
Subject 7	.52	.76	.24	7	10	7	3	sl.—
8	.35	.56	.21	7	10	9	11	+
9	.57	.81	.24	8	7	9	8	o.s.
10	.54	.67	.13	7	10	9	2	sl.+
11	.51	.78	.27	8	4	7	4	sl.—
Mean	.50	.72						
S.D	.09	.10						
C.V.(%)	18	14						
11 subjects:								
Mean	.63	.70						
S.D	.16	.15						
C.V.(%)	25	21						
1956								
FOURTEEN 4-DAY PERIODS								
Virginia:								
Subject 12	0.78	0.93	0.15	7	6	7	7	o.s.
13	.64	.58	—.06	8	3	8	8	o.s.
14	.64	.64	0	8	11	8	11	o.s.
15	.86	.56	—.30	7	10	8	0	o.s.
16	.74	.65	—.09	8	3	8	5	o.s.
17	.45	.53	.08	8	6	9	2	o.s.
18	.51	.55	.04	7	0	7	1	o.s.
19	.79	.76	—.03	8	9	10	0	o.s.
20	.89	.87	—.02	9	1	9	5	o.s.
21	.86	.91	.05	9	0	9	9	o.s.
22	.86	.70	—.16	7	11	9	3	sl.+
23	.71	.75	.04	8	6	8	0	sl.—
12 subjects:								
Mean	.73	.70						
S.D	.14	.14						
C.V.(%)	19	20						

See footnote at end of table, p. 10.

TABLE 5.—SKELETAL MEASUREMENTS: *Bone density and skeletal development for preadolescent girls in 3 metabolic studies*—Continued

Year, location, and subject	Bone density coefficient			Skeletal development		
	Initial	Final	Change	Chronological age at X-ray	Skeletal age at X-ray	Grade [1]
1958						
EIGHT 6-DAY PERIODS						
VIRGINIA:						
Subject 24	0.76	0.65	−0.11	----	----	----
25	.59	.62	.03	----	----	----
26	.74	.72	−.02	----	----	----
27	.48	.54	.06	----	----	----
28	.80	.77	−.03	----	----	----
29	.80	.68	−.12	----	----	----
30	.63	.60	−.03	----	----	----
31	.53	.65	.12	----	----	----
32	.65	.76	.11	----	----	----
33	.80	.77	−.03	----	----	----
34	.60	.77	.17	----	----	----
35	.59	.67	.08	----	----	----
12 subjects:						
Mean	.66	.68	----	----	----	----
S.D.	.11	.08	----	----	----	----
C.V. (%)	17	12	----	----	----	----

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[1] o.s., on schedule; sl.−, 1 standard deviation below mean; sl.+, 1 standard deviation above mean; +, 2 standard deviations above mean.

TABLE 6.—ENERGY EXPENDITURE: *Basal metabolic rate and basal energy expenditure for preadolescent girls in 4 metabolic studies*

[1954, 1956, 1957, 1958]

Year, location, diet, and subject	Basal metabolic rate		Deviation from standard[1]		Basal energy expenditure (24 hr.)	
	Initial	Final	Initial	Final	Initial	Final
1954						
SIXTEEN 4-DAY PERIODS						
TENNESSEE:						
Diet 1:	*Cal./m.^{2}/hr.*	*Cal./m.^{2}/hr.*	*Pct.*	*Pct.*	*Cal.*	*Cal.*
Subject 1	44.78	50.04	−5	6	975	1,147
2	48.73	48.73	4	4	1,081	1,088
3	51.95	46.49	9	−3	1,115	991
4	46.19	48.01	−2	2	1,170	1,248
5	48.17	43.96	1	−8	1,202	1,136
6	46.95	46.43	0	−1	1,114	1,134
LOUISIANA:						
Diet 1:						
Subject 7	37.07	42.21	−21	−10	854	1,017
8	35.19	38.50	−25	−18	1,042	1,130
9	31.90	37.06	−31	−20	854	1,014
10	32.15	41.20	−32	−12	720	951
11	29.48	37.37	−37	−20	740	975
11 subjects:						
Mean	41.14	43.64	−13	−7	988	1,076
S.D.	8.06	4.68	17	10	171	92
C.V.(%)	20	11	131	143	17	9
1956						
FOURTEEN 4-DAY PERIODS						
VIRGINIA:						
Diet 2:						
Subject 12	51.71	50.88	8	6	1,061	1,064
13	49.62	46.49	6	0	1,158	1,101
14	46.81	44.12	2	−4	1,056	1,018
Diet 3:						
Subject 15	48.68	47.06	2	0	1,133	1,115
16	43.99	43.09	−6	7	1,027	1,018
17	52.13	47.83	12	3	1,266	1,169
Diet 4:						
Subject 18	48.53	47.54	−3	−3	1,159	1,155
19	44.47	43.45	−4	−7	1,169	1,166
20	44.87	43.01	−2	−6	1,177	1,160
Diet 5:						
Subject 21	45.75	48.20	0	5	1,262	1,341
22	50.87	48.08	6	1	1,370	1,309
23	42.78	44.20	8	−5	1,116	1,189
12 subjects:						
Mean	47.52	46.16	1	−1	1,163	1,150
S.D.	3.19	2.53	6	5	99	100
C.V.(%)	7	5	600	500	9	9

See footnote at end of table, p. 12.

TABLE 6.—ENERGY EXPENDITURE: *Basal metabolic rate and basal energy expenditure for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, and subject	Basal metabolic rate		Deviation from standard [1]		Basal energy expenditure (24 hr.)	
	Initial	Final	Initial	Final	Initial	Final
1957						
FOUR 6-DAY PERIODS						
VIRGINIA:						
Diet 6:	*Cal./m.^{2}/hr.*	*Cal./m.^{2}/hr.*	*Pct.*	*Pct.*	*Cal.*	*Cal.*
Subject 12	47. 94	46. 99	3	1	1, 059	1, 062
13	44. 04	45. 06	−4	−2	1, 112	1, 159
14	44. 33	44. 58	−3	−3	1, 087	1, 116
15	43. 60	45. 52	−5	−1	1, 118	1, 185
17	46. 47	45. 75	1	0	1, 257	1, 262
36	44. 96	42. 29	−2	−8	1, 066	1, 025
Diet 7:						
Subject 19	46. 00	42. 93	0	−6	1, 312	1, 257
21	45. 65	45. 88	−1	0	1, 355	373
22	46. 07	48. 52	0	6	1, 342	1, 414
23	45. 23	44. 42	−1	−3	1, 277	1, 275
10 subjects:						
Mean	45. 43	45. 19	−1	−2	1, 198	1, 213
S.D	1. 29	1. 82	2	4	121	127
C.V.(%)	3	4	200	200	10	10
1958						
EIGHT 6-DAY PERIODS						
VIRGINIA:						
Diets 8 and 8':						
Subject 24	47. 67	47. 74	−13	−9	986	1, 018
25	41. 20	41. 56	−3	4	1, 128	1, 145
26	48. 54	49. 71	−3	−3	1, 031	1, 101
27	54. 02	49. 93	−12	−12	1, 210	1, 159
28	45. 62	45. 15	−1	1	998	1, 027
29	44. 76	40. 75	10	2	1, 073	994
30	46. 14	45. 96	−5	−6	1, 104	1, 116
31	46. 72	41. 25	−5	−13	1, 102	1, 013
32	45. 60	47. 13	−2	−2	1, 094	1, 155
33	44. 81	42. 24	−1	−12	1, 122	1, 078
34	44. 78	42. 27	−1	3	1, 138	1, 100
35	39. 89	41. 65	−5	−10	1, 081	1, 136
12	44. 63	47. 74	−2	−8	1, 073	1, 149
13 subjects:						
Mean	45. 72	44. 85	−3	−5	1, 088	1, 092
S.D	3. 42	3. 38	6	6	60	60
C.V.(%)	7	8	200	120	6	5

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[1] Boothby, Berkson, and Dunn (*8*).

TABLE 7.—BLOOD: *Hemoglobin, red blood cell count, hematocrit, and protein-bound iodine for preadolescent girls in 4 metabolic studies*

[1954, 1956, 1957, 1958]

Year, location, diet, and subject	Hemoglobin		Red blood cell count		Hematocrit	Protein-bound iodine	
	Initial	Final	Initial	Final	Final	Initial	Final
1954							
SIXTEEN 4-DAY PERIODS							
TENNESSEE:							
Diet 1:	*G./100 ml.*	*G./100 ml.*	*Million/mm.³*	*Million/mm.³*	*Pct.*	*Mcg./100 ml.*	*Mcg./100 ml.*
Subject 1	16. 0	14. 5	---	---	---	---	---
2	15. 5	15. 5	---	---	---	---	---
3	13. 8	15. 0	---	---	---	---	---
4	16. 0	16. 0	---	---	---	---	---
5	14. 0	15. 5	---	---	---	---	---
6	15. 0	14. 5	---	---	---	---	---
LOUISIANA:							
Diet 1:							
Subject 7	13. 9	14. 3	---	---	---	---	---
8	13. 9	15. 1	---	---	---	---	---
9	14. 4	14. 1	---	---	---	---	---
10	14. 5	14. 3	---	---	---	---	---
11	13. 6	13. 5	---	---	---	---	---
11 subjects:							
Mean	14. 6	14. 8	---	---	---	---	---
S.D.	. 9	. 7	---	---	---	---	---
C.V. (%)	6	5	---	---	---	---	---
1956							
FOURTEEN 4-DAY PERIODS							
VIRGINIA:							
Diet 2:							
Subject 12	13. 8	13. 6	---	---	---	4. 041	4. 707
13	11. 5	14. 4	---	---	---	4. 077	4. 757
14	11. 7	12. 0	---	---	---	4. 686	4. 839
Diet 3:							
Subject 15	13. 2	13. 4	---	---	---	4. 920	5. 477
16	12. 4	12. 4	---	---	---	4. 948	6. 010
17	---	12. 4	---	---	---	5. 199	5. 253
Diet 4:							
Subject 18	13. 2	12. 7	---	---	---	4. 467	4. 970
19	13. 2	12. 2	---	---	---	6. 508	6. 543
20	13. 8	13. 6	---	---	---	6. 011	6. 081
Diet 5:							
Subject 21	12. 7	13. 3	---	---	---	5. 124	4. 757
22	11. 7	12. 9	---	---	---	5. 186	5. 892
23	11. 8	12. 0	---	---	---	4. 563	4. 812
12 subjects:							
Mean	12. 6	12. 9	---	---	---	4. 978	5. 342
S.D.	. 9	. 8	---	---	---	. 722	. 641
C.V. (%)	7	6	---	---	---	14	12

Table 7.—BLOOD: *Hemoglobin, red blood cell count, hematocrit, and protein-bound iodine for preadolescent girls in 4 metabolic studies*—Continued

[1954, 1956, 1957, 1958]

Year, location, diet, and subject	Hemoglobin		Red blood cell count		Hematocrit	Protein-bound iodine	
	Initial	Final	Initial	Final	Final	Initial	Final
1957							
FOUR 6-DAY PERIODS							
Virginia:							
Diet 6:	*G./100 ml.*	*G./100 ml.*	*Million/mm.³*	*Million/mm.³*	*Pct.*	*Mcg./100 ml.*	*Mcg./100 ml.*
Subject 12	11.7	11.4	4.47	4.00	----------	----------	----------
13	12.4	12.2	4.65	4.15	----------	----------	----------
14	12.2	12.0	4.28	4.10	----------	----------	----------
15	12.6	12.6	4.67	4.40	----------	----------	----------
17	12.2	12.0	4.60	4.20	----------	----------	----------
36	12.4	12.4	4.41	4.70	----------	----------	----------
Diet 7:							
Subject 19	13.5	13.3	4.36	4.50	----------	----------	----------
21	11.0	12.4	4.20	4.60	----------	----------	----------
22	12.4	12.2	4.35	4.30	----------	----------	----------
23	12.4	12.4	4.47	4.40	----------	----------	----------
10 subjects:							
Mean	12.3	12.3	4.45	4.34	----------	----------	----------
S.D.	.6	.5	.15	.23	----------	----------	----------
C.V. (%)	5	4	3	5	----------	----------	----------
1958							
EIGHT 6-DAY PERIODS							
Virginia:							
Diets 8 and 8′:							
Subject 24	12.0	14.0	4.06	4.24	43.0	5.028	4.362
25	15.5	15.0	5.05	5.23	50.0	6.201	4.066
26	14.0	14.0	4.76	4.14	45.0	5.289	4.725
27	12.0	14.0	3.82	4.58	43.5	6.444	4.362
28	13.5	13.5	4.33	4.40	44.5	5.463	3.771
29	12.5	13.0	4.14	4.26	40.0	5.289	4.437
30	13.0	14.0	4.43	4.98	44.0	5.544	6.162
31	14.0	14.0	4.66	5.02	46.5	6.918	5.214
32	12.5	13.0	4.30	4.24	39.5	5.874	3.921
33	13.0	13.5	4.48	4.62	42.0	5.202	3.312
34	15.0	15.0	5.09	5.16	45.0	5.793	4.362
35	14.0	14.0	4.86	4.94	41.5	4.125	3.312
12	12.5	14.5	4.80	4.80	42.0	5.286	----------
13 subjects:							
Mean	13.3	14.0	4.52	4.67	43.6	5.574	4.334
S.D.	1.1	.6	.39	.38	2.8	.701	.794
C.V. (%)	8	4	9	8	6	12	18

TABLE 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*

[1954, 1956, 1957, 1958—all periods except alternate periods for dry matter and urine pH in 1954 and 1956]

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1954						
SIXTEEN 4-DAY PERIODS						
TENNESSEE:						
Diet 1:						
Subject 1:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	--------	--------	620	--------	--------	102
2	400. 10	31. 42	557	6. 22	19. 32	77
3	--------	--------	524	--------	--------	89
4	417. 50	32. 96	537	6. 20	21. 92	94
5	--------	--------	522	--------	--------	79
6	417. 90	33. 97	503	6. 32	23. 95	85
7	--------	--------	780	--------	--------	117
8	408. 70	36. 72	611	6. 32	22. 98	117
9	--------	--------	550	--------	--------	118
10	405. 80	35. 34	601	6. 28	23. 74	123
11	--------	--------	694	--------	--------	127
12	416. 70	35. 94	734	6. 28	23. 00	131
13	--------	--------	602	--------	--------	97
14	401. 70	33. 18	546	6. 32	22. 14	107
15	--------	--------	670	--------	--------	105
16	432. 70	33. 42	546	6. 30	25. 86	134
Mean	412. 64	34. 12	600	6. 28	22. 86	106
S.D.	10. 75	1. 76	128	. 11	1. 89	18
C.V. (%)	3	5	21	2	8	17
Diet 1:						
Subject 2:						
Period 1	--------	--------	778	--------	--------	53
2	400. 10	30. 64	804	6. 42	15. 36	51
3	--------	--------	854	--------	--------	70
4	417. 50	34. 65	753	6. 42	17. 83	64
5	--------	--------	658	--------	--------	63
6	417. 80	34. 07	833	6. 48	16. 75	58
7	--------	--------	823	--------	--------	53
8	408. 70	37. 40	773	6. 42	14. 84	51
9	--------	--------	814	--------	--------	57
10	405. 80	36. 06	774	6. 50	24. 62	100
11	--------	--------	--------	--------	--------	--------
12	372. 60	28. 98	860	6. 50	17. 90	58
13	--------	--------	821	--------	--------	60
14	163. 70	26. 80	418	6. 38	18. 68	99
15	--------	--------	928	--------	--------	67
16	387. 60	34. 47	766	6. 48	16. 85	54
Mean	371. 72	32 88	777	6. 45	17. 85	64
S.D.	85. 42	3. 68	211	. 14	3. 02	15
C.V. (%)	23	11	27	2	17	24

TABLE 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1954						
SIXTEEN 4-DAY PERIODS						
TENNESSEE—Continued						
Diet 1:						
Subject 3:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	--------	--------	662	--------	--------	61
2	--------	--------	--------	--------	--------	--------
3	--------	--------	667	--------	--------	114
4	328. 10	29. 66	562	6. 45	18. 85	113
5	--------	--------	532	--------	--------	78
6	417. 80	34. 49	739	6. 50	23. 92	126
7	--------	--------	863	--------	--------	90
8	332. 70	29. 80	776	6. 45	13. 95	61
9	--------	--------	650	--------	--------	84
10	366. 90	31. 47	630	6. 52	15. 37	73
11	--------	--------	746	--------	--------	70
12	416. 50	35. 80	832	6. 52	19. 28	90
13	--------	--------	762	--------	--------	86
14	401. 60	36. 88	689	6. 52	18. 10	84
15	--------	--------	555	--------	--------	186
16	249. 40	24. 67	402	6. 53	12. 32	47
Mean	359. 00	31. 82	676	6. 50	17. 40	91
S.D.	60. 96	4. 25	167	. 15	3. 88	34
C.V.(%)	17	13	25	2	22	37
Diet 1:						
Subject 4:						
Period 1	--------	--------	843	--------	--------	47
2	400. 10	37. 00	870	6. 40	13. 18	40
3	--------	--------	624	--------	--------	61
4	420. 30	35. 14	590	6. 32	14. 84	51
5	--------	--------	601	--------	--------	64
6	419. 10	37. 31	698	6. 40	15. 23	51
7	--------	--------	768	--------	--------	55
8	410. 30	37. 10	740	6. 32	15. 30	52
9	--------	--------	694	--------	--------	54
10	407. 20	35. 81	584	6. 35	14. 58	48
11	--------	--------	910	--------	--------	52
12	416. 50	34. 88	739	6. 30	17. 62	55
13	--------	--------	778	--------	--------	50
14	401. 60	35. 65	803	6. 28	14. 31	46
15	--------	--------	838	--------	--------	43
16	439. 90	26. 58	784	6. 30	18. 06	58
Mean	414. 38	34. 93	741	6. 33	15. 39	52
S.D.	12. 81	3. 50	185	. 06	1. 65	6
C.V. (%)	3	10	25	1	11	12

TABLE 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1954						
SIXTEEN 4-DAY PERIODS						
TENNESSEE—Continued						
Diet 1:						
Subject 5:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1			906			142
2	400. 20	31. 99	1, 133	6. 38	14. 66	46
3			912			65
4	417. 50	32. 64	614	6. 32	15. 95	59
5			675			67
6	417. 90	30. 19	681	6. 62	16. 69	62
7			825			70
8	408. 70	36. 56	704	6. 32	16. 63	72
9			591			74
10	405. 70	34. 95	769	6. 48	18. 74	88
11			836			54
12	416. 60	37. 00	854	6. 30	19. 24	66
13			732			149
14	311. 10	33. 84	860	6. 22	12. 03	38
15			733			65
16	405. 10	35. 12	648	6. 25	15. 40	54
Mean	397. 85	34. 04	780	6. 36	16. 17	73
S.D	35. 66	2. 33	197	. 21	2. 29	30
C.V. (%)	9	7	25	3	14	41
Diet 1:						
Subject 6:						
Period 1			728			57
2	400. 10	33. 74	769	6. 40	22. 14	79
3			796			38
4	417. 40	31. 88	516	6. 30	18. 00	62
5			641			64
6	419. 30	35. 40	682	6. 35	17. 91	54
7			784			70
8	408. 70	35. 78	725	6. 32	21. 68	88
9			622			75
10	405. 70	35. 10	660	6. 32	19. 54	72
11			641			69
12	416. 70	31. 60	649	6. 30	19. 85	85
13			700			53
14	401. 70	28. 52	526	6. 28	19. 50	76
15			623			58
16	439. 70	34. 82	602	6. 30	17. 98	59
Mean	413. 66	33. 36	667	6. 32	19. 58	66
S.D	12. 81	2. 51	142	. 06	1. 64	13
C.V. (%)	3	8	21	1	8	20
6 subjects (Tenn.):						
Mean	395. 64	33. 56	706	6. 37	18. 23	75
S.D	48. 26	3. 08	181	. 15	3. 44	28
C.V. (%)	12	9	26	2	19	37

TABLE 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1954						
SIXTEEN 4-DAY PERIODS						
LOUISIANA:						
Diet 1:						
Subject 7:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	--------	--------	818	--------	--------	80
2	--------	--------	--------	--------	--------	96
3	--------	--------	778	--------	--------	79
4	408. 10	35. 63	842	--------	21. 41	79
5	--------	--------	925	--------	--------	110
6	412. 50	34. 20	768	--------	26. 69	181
7	--------	--------	1, 084	--------	--------	124
8	438. 50	36. 74	799	--------	20. 86	100
9		--------	999	--------	--------	109
10	417. 90	38. 47	850	--------	21. 36	99
11	--------	--------	915	--------	--------	89
12	432. 50	40. 12	882	--------	21. 18	89
13	--------	--------	1, 122	--------	--------	81
14	413. 90	38. 82	1, 382	--------	19. 04	79
15	--------	--------	888	--------	--------	91
16	431. 10	38. 46	1, 037	--------	19. 58	87
Mean	422. 07	37. 49	942	--------	21. 45	98
S.D.	11. 77	2. 06	262	--------	2. 49	26
C.V. (%)	3	5	28	--------	12	26
Diet 1:						
Subject 8:						
Period 1	--------	--------	1, 073	--------	--------	59
2	435. 10	41. 20	1, 016	--------	15. 58	56
3	--------	--------	1, 033	--------	--------	62
4	409. 50	38. 09	855	--------	14. 94	56
5	--------	--------	922	--------	--------	74
6	412. 50	37. 40	846	--------	18. 92	106
7	--------	--------	890	--------	--------	114
8	438. 50	40. 28	939	--------	14. 47	55
9	--------	--------	988	--------	--------	52
10	417. 90	36. 36	811	--------	16. 17	57
11	--------	--------	935	--------	--------	53
12	432. 50	40. 97	1, 002	--------	17. 00	56
13	--------	--------	901	--------	--------	35
14	418. 10	39. 09	949	--------	15. 01	57
15	--------	--------	1, 133	--------	--------	51
16	432. 50	38. 25	886	--------	15. 17	48
Mean	424. 58	38. 96	947	--------	15. 91	62
S.D.	11. 27	1. 74	152	--------	1. 45	20
C.V. (%)	3	4	16	--------	9	33

Table 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1954						
SIXTEEN 4-DAY PERIODS						
Louisiana—Continued						
Diet 1:						
Subject 9:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	--------	--------	636	--------	--------	--------
2	433. 70	38. 29	699	--------	11. 93	33
3	--------	--------	726	--------	--------	50
4	409. 50	37. 82	580	--------	17. 87	62
5	--------	--------	751	--------	--------	90
6	412. 50	37. 23	681	--------	20. 21	115
7	--------	--------	808	--------	--------	97
8	438. 50	33. 01	620	--------	17. 26	76
9	--------	--------	739	--------	--------	72
10	417. 90	39. 15	670	--------	17. 57	76
11	--------	--------	818	--------	--------	76
12	432. 50	42. 91	899	--------	18. 49	96
13	--------	--------	1, 078	--------	--------	98
14	418. 10	36. 75	731	--------	15. 60	64
15	--------	--------	942	--------	--------	61
16	432. 50	40. 20	862	--------	16. 11	59
Mean	424. 40	38. 17	765	--------	16. 88	75
S.D	11. 10	2. 86	193	--------	2. 45	21
C.V. (%)	3	7	25	--------	15	3
Diet 1:						
Subject 10:						
Period 1	--------	--------	746	--------	--------	55
2	435. 10	36. 27	697	--------	16. 56	60
3	--------	--------	651	--------	--------	52
4	408. 10	36. 06	744	--------	17. 31	80
5	--------	--------	780	--------	--------	98
6	412. 50	34. 10	690	--------	16. 65	80
7	--------	--------	672	--------	--------	57
8	441. 30	36. 14	689	--------	17. 30	70
9	--------	--------	810	--------	--------	67
10	417. 90	36. 45	664	--------	16. 04	67
11	--------	--------	750	--------	--------	84
12	432. 50	38. 97	609	--------	14. 16	66
13	--------	--------	735	--------	--------	171
14	419. 50	36. 47	720	--------	22. 60	138
15	--------	--------	672	--------	--------	110
16	433. 90	35. 11	690	--------	15. 94	77
Mean	425. 10	36. 20	707	--------	17. 07	83
S.D	12. 10	1. 39	118	--------	2. 45	32
C.V. (%)	3	4	17	--------	14	39

Table 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1954						
SIXTEEN 4-DAY PERIODS						
Louisiana—Continued						
Diet 1:						
Subject 11:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	--------	--------	728	--------	--------	62
2	433.70	32.41	595	--------	14.46	57
3	--------	--------	620	--------	--------	63
4	408.10	35.47	701	--------	18.87	73
5	--------	--------	642	--------	--------	46
6	412.50	37.86	621	--------	17.75	65
7	--------	--------	712	--------	--------	71
8	438.50	38.86	658	--------	16.72	62
9	--------	--------	635	--------	--------	57
10	417.90	38.99	612	--------	17.32	66
11	--------	--------	704	--------	--------	60
12	432.50	35.78	678	--------	15.16	59
13	--------	--------	920	--------	--------	65
14	418.10	40.58	754	--------	24.49	116
15	--------	--------	656	--------	--------	90
16	429.70	34.29	582	--------	19.75	89
Mean	423.88	36.78	676	--------	18.06	69
S.D	11.12	2.75	146	--------	3.13	17
C.V. (%)	3	7	22	--------	17	24
5 subjects (La.):						
Mean	424.05	37.52	804	--------	17.78	77
S.D	10.90	2.34	212	--------	2.98	27
C.V. (%)	3	6	26	--------	17	34
11 subjects in 1954:						
Mean	408.52	35.36	751	--------	18.02	76
S.D	38.93	3.39	201	--------	3.23	27
C.V. (%)	10	10	27	--------	18	36
1956						
FOURTEEN 4-DAY PERIODS						
Virginia:						
Diet 2:						
Subject 12						
Period 1	--------	--------	848	--------	--------	101
2	383.60	24.54	856	6.42	20.08	84
3	--------	--------	902	--------	--------	74
4	406.40	23.42	782	6.61	18.44	79
5	--------	--------	1,000	--------	--------	81
6	436.20	25.92	838	6.30	20.16	108
7	--------	--------	760	--------	--------	125
8	301.60	30.63	1,640	6.35	13.36	55
9	--------	--------	[1] 630	--------	--------	77
10	405.60	26.80	826	6.41	18.60	91
11	--------	--------	635	--------	--------	164
12	435.40	26.18	740	6.20	26.34	137
13	--------	--------	465	--------	--------	114
14	425.00	26.21	491	6.30	23.01	106
Mean	399.11	26.24	815	6.37	20.00	100
S.D	46.92	2.26	363	.24	4.04	29
C.V. (%)	12	9	45	4	20	29

See footnotes at end of table, p. 33.

Table 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1956						
FOURTEEN 4-DAY PERIODS						
Virginia—Continued						
Diet 2:						
Subject 13:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	--------	--------	1,235	--------	--------	57
2	383.60	28.73	1,242	6.48	18.56	74
3	--------	--------	1,132	--------	--------	52
4	406.40	27.18	1,181	6.46	13.72	56
5	--------	--------	1,092	--------	--------	71
6	436.20	28.77	1,387	6.42	15.36	67
7	--------	--------	1,232	--------	--------	66
8	429.60	26.40	1,182	6.48	16.16	75
9	--------	--------	1,238	--------	--------	51
10	405.60	29.87	1,089	6.36	15.49	63
11	--------	--------	1,415	--------	--------	64
12	435.40	25.74	1,288	6.47	16.60	82
13	--------	--------	1,305	--------	--------	66
14	425.00	25.37	1,031	6.41	14.58	60
Mean	417.40	27.44	1,218	6.44	15.78	65
S.D.	19.52	1.72	194	.18	1.55	9
C.V. (%)	5	6	16	3	10	14
Diet 2:						
Subject 14:						
Period 1	--------	--------	1,312	--------	--------	84
2	383.60	27.12	1,437	6.40	17.27	83
3	--------	--------	1,030	--------	--------	98
4	406.40	27.01	973	6.37	17.97	103
5	--------	--------	935	--------	--------	103
6	436.20	27.09	1,058	6.34	19.71	85
7	--------	--------	1,080	--------	--------	87
8	429.60	25.90	938	6.27	19.56	89
9	--------	--------	1,102	--------	--------	82
10	405.60	27.12	1,040	6.32	19.90	98
11	--------	--------	1,058	--------	--------	110
12	435.40	25.35	852	6.27	15.94	81
13	--------	--------	1,105	--------	--------	96
14	425.00	30.12	1,236	6.33	20.86	89
Mean	417.40	27.10	1,083	6.33	18.74	93
S.D.	19.52	1.51	245	.21	1.73	9
C.V. (%)	5	6	23	3	9	10
3 subjects on diet 2:						
Mean	411.30	26.93	1,039	6.38	18.17	86
S.D.	31.10	1.83	322	.21	3.13	23
C.V. (%)	8	7	31	3	17	27

Table 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1956						
FOURTEEN 4-DAY PERIODS						
Virginia—Continued						
Diet 3:						
Subject 15:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	--------	--------	1,092	--------	--------	58
2	390.90	39.01	1,108	6.61	13.16	48
3	--------	--------	1,242	--------	--------	40
4	423.50	37.96	1,335	6.53	13.02	46
5	--------	--------	1,200	--------	--------	58
6	397.70	38.24	1,222	6.45	11.61	38
7	--------	--------	1,165	--------	--------	50
8	392.10	38.13	1,011	6.43	11.15	36
9	--------	--------	1,295	--------	--------	40
10	383.50	39.68	1,083	6.37	10.92	36
11	--------	--------	1,338	--------	--------	48
12	399.50	39.56	1,268	6.43	9.89	32
13	--------	--------	1,110	--------	--------	44
14	392.90	35.48	966	6.41	11.80	40
Mean	397.16	38.29	1,174	6.46	11.65	47
S.D.	12.71	1.42	232	.18	1.16	11
C.V. (%)	3	4	20	3	10	23
Diet 3:						
Subject 16:						
Period 1	--------	--------	1,132	--------	--------	66
2	390.90	38.12	929	6.48	16.24	63
3	--------	--------	995	--------	--------	66
4	423.50	38.61	1,032	6.50	15.86	56
5	--------	--------	962	--------	--------	63
6	397.70	36.36	991	6.45	16.55	63
7	--------	--------	1,008	--------	--------	54
8	392.10	39.73	902	6.44	16.74	60
9	--------	--------	910	--------	--------	66
10	383.50	39.90	866	6.40	14.59	50
11	--------	--------	1,005	--------	--------	63
12	399.50	38.60	872	6.35	15.46	60
13	--------	--------	1,145	--------	--------	54
14	392.90	39.98	918	6.30	17.74	65
Mean	397.16	38.76	976	6.42	16.17	61
S.D.	12.71	1.29	170	.15	1.00	5
C.V. (%)	3	3	17	2	6	9

Table 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1956						
FOURTEEN 4-DAY PERIODS						
VIRGINIA—Continued						
Diet 3:						
Subject 17:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	--------	--------	--------	--------	--------	--------
2	--------	--------	--------	--------	--------	--------
3	--------	--------	--------	--------	--------	--------
4	--------	--------	--------	--------	--------	--------
5	--------	--------	1,110	--------	--------	91
6	397.70	36.00	1,118	6.30	17.99	72
7	--------	--------	1,215	--------	--------	46
8	392.10	39.13	1,088	6.25	18.66	76
9	--------	--------	1,062	--------	--------	59
10	383.50	39.42	1,030	6.17	16.40	56
11	--------	--------	1,240	--------	--------	50
12	399.50	38.77	825	6.17	13.40	46
13	--------	--------	950	--------	--------	56
14	392.90	40.33	948	6.18	14.16	52
Mean	393.14	38.73	1,059	6.21	16.12	61
S.D	6.23	1.63	232	.19	2.31	15
C.V. (%)	2	4	21	3	14	24
3 subjects on diet 3:						
Mean	396.10	38.58	1,071	6.38	14.49	56
S.D	10.94	1.37	226	.22	2.63	12
C.V. (%)	3	4	21	3	18	22
Diet 4:						
Subject 18:						
Period 1	--------	--------	[2] 902	--------	--------	113
2	504.50	30.32	961	6.45	15.43	64
3	--------	--------	818	--------	--------	--------
4	--------	--------	860	6.31	--------	[3] 174
5	--------	--------	672	--------	--------	94
6	479.90	28.83	878	6.26	22.05	92
7	--------	--------	932	--------	--------	92
8	516.50	31.06	1,018	6.26	19.91	81
9	--------	--------	782	--------	--------	96
10	486.10	33.78	712	6.22	18.72	85
11	--------	--------	650	--------	--------	69
12	516.30	32.81	596	6.23	23.36	88
13	--------	--------	652	--------	--------	99
14	506.90	32.77	658	6.16	14.33	56
Mean	501.70	31.60	792	6.27	18.97	93
S.D	15.40	1.85	186	.26	3.57	29
C.V. (%)	3	6	24	4	19	31

See footnotes at end of table, p. 33.

Table 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1956						
FOURTEEN 4-DAY PERIODS						
Virginia—Continued						
Diet 4:						
Subject 19:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	--------	--------	1, 392	--------	--------	--------
2	504. 50	34. 14	1, 430	6. 68	17. 93	[4] 94
3	--------	--------	1, 484	--------	--------	59
4	--------	--------	1, 346	6. 65	--------	58
5	--------	--------	1, 150	--------	--------	62
6	479. 90	34. 35	1, 445	6. 54	22. 79	76
7	--------	--------	1, 449	--------	--------	27
8	516. 50	34. 19	1, 517	6. 61	15. 97	48
9	--------	--------	1, 618	--------	--------	55
10	486. 10	33. 90	1, 439	6. 64	26. 33	96
11	--------	--------	1, 456	--------	--------	51
12	516. 30	34. 66	1, 411	6. 48	17. 91	66
13	--------	--------	1, 542	--------	--------	46
14	506. 90	35. 92	1, 434	6. 48	12. 14	37
Mean	501. 70	34. 53	1, 437	6. 58	18. 84	60
S.D.	15. 40	. 73	258	. 19	5. 03	20
C.V. (%)	3	2	18	3	27	34
Diet 4:						
Subject 20:						
Period 1	--------	--------	1, 054	--------	--------	138
2	504. 50	33. 17	866	6. 36	19. 96	108
3	--------	--------	1, 025	--------	--------	128
4	483. 70	34. 73	1, 088	6. 36	14. 30	71
5	--------	--------	985	--------	--------	180
6	479. 90	34. 26	1, 038	6. 34	21. 69	120
7	--------	--------	910	--------	--------	94
8	454. 10	27. 20	810	5. 97	38. 38	248
9	--------	--------	935	--------	--------	125
10	486. 10	31. 14	810	6. 33	22. 20	128
11	--------	--------	895	--------	--------	86
12	516. 30	32. 05	824	6. 20	22. 67	114
13	--------	--------	1, 042	--------	--------	97
14	506. 90	34. 69	843	6. 24	20. 54	124
Mean	490. 21	32. 46	938	6. 26	22. 82	126
S.D.	20. 95	2. 69	172	. 25	7. 41	44
C.V. (%)	4	8	18	4	32	35
3 subjects on diet 4:						
Mean	497. 47	32. 84	1, 056	6. 37	20. 35	94
S.D.	17. 62	2. 24	346	. 28	5. 71	42
C.V. (%)	4	7	33	4	28	45

See footnotes at end of table, p. 33.

Table 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1956						
FOURTEEN 4-DAY PERIODS						
Virginia—Continued						
Diet 5:						
Subject 21:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1			988			84
2	489. 20	45. 51	1, 094	6. 63	15. 13	55
3			1, 055			56
4	502. 40	45. 90	1, 214	6. 56	15. 28	54
5			1, 225			90
6	512. 40	44. 74	1, 340	6. 54	15. 01	54
7			1, 220			68
8	500. 00	48. 13	1, 145	6. 53	15. 95	56
9			1, 202			65
10	491. 20	47. 47	1, 086	6. 38	15. 77	62
11			1, 239			63
12	504. 00	46. 61	1, 178	6. 39	13. 60	45
13			1, 199			64
14	490. 60	48. 59	989	6. 42	18. 09	66
Mean	498. 54	46. 71	1, 155	6. 49	15. 55	63
S.D.	8. 59	1. 42	172	. 14	1. 35	12
C.V. (%)	2	3	15	2	9	19
Diet 5:						
Subject 22:						
Period 1			872			58
2	489. 20	48. 84	862	6. 08	15. 77	58
3			1, 042			50
4	502. 40	47. 10	986	6. 03	12. 47	42
5			756			33
6	512. 40	50. 28	968	5. 92	22. 07	74
7			900			48
8	500. 00	48. 44	896	5. 92	10. 50	31
9			861			50
10	491. 20	48. 27	936	5. 90	11. 36	35
11			806			46
12	504. 00	47. 23	904	5. 88	22. 90	80
13			948			44
14	490. 60	47. 61	825	5. 89	11. 09	43
Mean	498. 54	48. 25	897	5. 94	15. 17	50
S.D.	8. 59	1. 10	138	. 18	5. 29	14
C.V. (%)	2	2	15	3	35	29

Table 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1956						
FOURTEEN 4-DAY PERIODS						
Virginia—Continued						
Diet 5:						
Subject 23:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	--------	--------	1, 098	--------	--------	64
2	489. 20	45. 46	1, 188	6. 39	17. 51	69
3	--------	--------	1, 135	--------	--------	74
4	502. 40	43. 68	1, 260	6. 46	17. 88	80
5	--------	--------	1, 132	--------	--------	97
6	512. 40	42. 67	1, 336	6. 40	23. 00	108
7	--------	--------	1, 105	--------	--------	79
8	500. 00	45. 41	1, 014	6. 29	20. 71	90
9	--------	--------	1, 134	--------	--------	93
10	491. 20	45. 23	941	6. 34	17. 25	65
11	--------	--------	1, 110	--------	--------	69
12	504. 00	44. 38	953	6. 24	17. 63	87
13	--------	--------	1, 080	--------	--------	76
14	490. 60	41. 90	894	6. 16	21. 41	87
Mean	498. 54	44. 10	1, 099	6. 33	19. 34	82
S.D.	8. 59	1. 41	176	. 18	2. 32	13
C.V. (%)	2	3	16	3	12	16
3 subjects on diet 5:						
Mean	498. 54	46. 35	1, 050	6. 25	16. 68	65
S.D.	8. 15	2. 16	196	. 28	3. 78	18
C.V. (%)	2	5	19	5	23	28
12 subjects in 1956:						
Mean	451. 06	36. 20	1, 053	6. 34	17. 42	75
S.D.	51. 22	7. 61	281	. 26	4. 42	30
C.V. (%)	11	21	27	4	25	40
1957						
FOUR 6-DAY PERIODS						
Virginia:						
Diet 6:						
Subject 12:						
Period 1	531. 80	21. 13	851	6. 25	13. 78	56
2	526. 40	21. 80	1, 066	6. 16	17. 82	76
3	539. 20	21. 51	870	6. 10	13. 82	64
4	533. 40	22. 01	780	5. 99	15. 25	71
Mean	532. 70	21. 61	892	6. 12	15. 17	67
S.D.	5. 27	. 38	245	. 26	1. 90	9
C.V (%)	1	2	27	4	13	13

Table 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1957						
FOUR 6-DAY PERIODS						
VIRGINIA—Continued						
Diet 6:						
Subject 13:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	531. 80	22. 75	1, 364	6. 08	13. 92	56
2	526. 40	22. 95	1, 459	6. 17	11. 70	79
3	539. 20	20. 48	1, 285	6. 05	15. 02	70
4	533. 40	22. 62	1, 348	5. 99	16. 00	86
Mean	532. 70	22. 20	1, 364	6. 07	14. 16	73
S.D	5. 27	1. 15	197	. 15	1. 85	12
C.V. (%)	1	5	14	2	13	17
Diet 6:						
Subject 14:						
Period 1	531. 80	24. 56	1, 630	6. 01	19. 74	80
2	526. 40	23. 84	1, 400	5. 84	22. 07	70
3	539. 20	21. 84	1, 205	5. 78	16. 68	80
4	533. 40	23. 70	1, 580	5. 91	16. 90	79
Mean	532. 70	23. 48	1, 454	5. 88	18. 85	78
S.D	5. 27	1. 16	319	. 23	2. 56	5
C.V. (%)	1	5	22	4	14	7
Diet 6:						
Subject 15:						
Period 1	531. 80	22. 08	1, 443	6. 30	12. 05	41
2	526. 40	26. 72	1, 684	6. 11	11. 55	42
3	539. 20	20. 84	1, 415	6. 00	13. 82	50
4	533. 40	22. 96	1, 400	5. 93	11. 75	44
Mean	532. 70	23. 15	1, 485	6. 08	12. 29	44
S.D	5. 27	2. 53	338	. 27	1. 04	4
C.V. (%)	1	11	23	4	8	9
Diet 6:						
Subject 17:						
Period 1	531. 80	26. 33	1, 317	5. 96	16. 88	56
2	526. 40	26. 00	1, 278	5. 86	12. 88	45
3	539. 20	25. 80	1, 242	5. 88	13. 52	50
4	533. 40	23. 45	1, 091	5. 89	15. 48	68
Mean	532. 70	25. 40	1, 232	5. 90	14. 69	55
S.D	5. 27	1. 31	223	. 25	1. 83	10
C.V. (%)	1	5	18	4	12	18
Diet 6:						
Subject 36:						
Period 1	531. 80	24. 24	1, 385	6. 23	14. 35	64
2	526. 40	24. 16	1, 309	6. 16	15. 98	74
3	539. 20	24. 74	1, 268	6. 10	15. 25	86
4	533. 40	23. 41	1, 219	5. 99	15. 15	98
Mean	532. 70	24. 14	1, 295	6. 12	15. 18	81
S.D	5. 27	. 55	276	. 25	. 67	14
C.V. (%)	1	2	21	4	4	18
6 subjects on diet 6:						
Mean	532. 70	23. 33	1, 287	6. 03	15. 06	66
S.D	4. 66	1. 75	332	. 25	2. 53	16
C.V. (%)	1	8	26	4	17	24

Table 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1957						
FOUR 6-DAY PERIODS						
Virginia—Continued						
Diet 7:						
Subject 19:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	572. 60	28. 92	1, 862	6. 57	9. 75	34
2	574. 20	26. 79	1, 928	6. 57	12. 92	42
3	569. 60	29. 21	2, 162	6. 34	13. 58	28
4	582. 80	28. 04	2, 264	6. 53	14. 02	39
Mean	574. 80	28. 24	2, 054	6. 50	12. 57	36
S.D	5. 66	1. 09	429	. 23	1. 93	6
C.V. (%)	1	4	21	3	15	17
Diet 7:						
Subject 21:						
Period 1	572. 60	29. 36	1, 439	6. 47	14. 35	47
2	574. 20	28. 60	1, 391	6. 44	14. 28	40
3	569. 60	29. 68	1, 327	6. 32	16. 18	59
4	582. 80	27. 67	1, 366	6. 39	16. 12	62
Mean	574. 80	28. 83	1, 380	6. 41	15. 23	52
S.D	5. 66	. 89	235	. 17	1. 06	11
C.V. (%)	1	3	17	3	7	20
Diet 7:						
Subject 22:						
Period 1	572. 60	28. 89	1, 323	5. 62	12. 35	41
2	574. 20	30. 00	1, 043	5. 70	12. 28	44
3	569. 60	30. 98	939	5. 45	12. 45	40
4	582. 80	28. 87	898	5. 60	8. 29	32
Mean	574. 80	29. 68	1, 051	5. 60	11. 34	39
S.D	5. 66	1. 01	359	. 25	2. 04	5
C.V. (%)	1	3	34	4	18	13
Diet 7:						
Subject 23:						
Period 1	572. 60	26. 36	1, 408	6. 38	12. 80	38
2	574. 20	25. 94	1, 461	6. 33	16. 10	59
3	569. 60	26. 75	1, 370	6. 16	14. 98	51
4	582. 80	25. 52	1, 325	6. 14	18. 75	88
Mean	574. 80	26. 14	1, 391	6. 26	15. 66	59
S.D	5. 66	. 53	197	. 21	2. 48	21
C.V. (%)	1	2	14	3	16	36
4 subjects on diet 7:						
Mean	574. 80	28. 22	1, 469	6. 19	13. 70	47
S.D	5. 07	1. 67	482	. 41	2. 55	15
C.V. (%)	1	6	33	7	19	32
10 subjects in 1957:						
Mean	549. 54	25. 29	1, 360	6. 10	14. 51	58
S.D	21. 42	2. 94	408	. 34	2. 59	18
C.V. (%)	4	12	30	6	18	31

TABLE 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1958						
EIGHT 6-DAY PERIODS						
VIRGINIA:						
Diet 8:						
Subject 24:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	475. 20	17. 64	1, 519	5. 68	19. 48	110
2	480. 20	16. 04	1, 522	5. 82	20. 43	82
3	480. 60	15. 70	1, 364	5. 70	16. 55	62
4	478. 60	16. 17	1, 128	5. 57	17. 90	100
5	479. 80	16. 87	1, 475	5. 52	17. 61	102
Mean	478. 88	16. 48	1, 402	5. 66	18. 39	91
S.D	2. 19	. 77	263	. 23	1. 55	(5)
C.V. (%)	0	5	19	4	8	(5)
Diet 8′:						
Subject 24:						
Period 6	468. 20	16. 22	1, 466	5. 45	19. 35	110
7	468. 80	14. 98	1, 281	5. 30	18. 36	97
8	474. 20	14. 91	1, 405	5. 17	18. 12	144
Mean	470. 40	15. 37	1, 390	5. 31	18. 61	117
S.D	3. 30	. 74	190	. 22	. 65	(5)
C.V. (%)	1	5	14	4	3	(5)
Diet 8:						
Subject 25:						
Period 1	475. 20	17. 04	1, 197	5. 28	13. 80	80
2	480. 20	16. 30	1, 178	5. 22	14. 95	84
3	480. 60	16. 50	1, 007	5. 14	12. 28	42
4	478. 60	17. 08	844	5. 13	14. 40	97
5	479. 80	17. 04	998	5. 08	16. 28	100
Mean	478. 88	16. 79	1, 045	5. 17	14. 34	81
S.D	2. 19	. 37	253	. 13	1. 47	(5)
C.V. (%)	0	2	24	3	10	(5)
Diet 8′:						
Subject 25:						
Period 6	468. 20	16. 17	1, 138	5. 02	14. 60	80
7	506. 80	14. 99	828	4. 92	16. 58	86
8	512. 20	14. 93	803	4. 89	15. 28	91
Mean	495. 73	15. 36	929	4. 95	15. 49	86
S.D	24. 00	. 70	311	. 10	1. 01	(5)
C.V. (%)	5	5	33	2	7	(5)
Diet 8:						
Subject 26:						
Period 1	474. 60	18. 22	1, 349	5. 78	14. 50	[6] 84
2	478. 60	13. 94	1, 253	5. 60	20. 37	[6] 165
3	477. 30	14. 46	1, 047	5. 51	19. 32	112
4	460. 10	14. 74	1, 032	5. 66	19. 50	138
5	464. 70	14. 37	1, 103	5. 55	22. 16	153
Mean	471. 06	15. 15	1, 156	5. 62	19. 17	130
S.D	8. 20	1. 74	241	. 23	2. 84	(5)
C.V. (%)	2	11	21	4	15	(5)

See footnotes at end of table, p. 33.

TABLE 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1958						
EIGHT 6-DAY PERIODS						
VIRGINIA—Continued						
Diet 8′:						
Subject 26:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 6	450. 50	14. 74	1, 115	5. 41	19. 24	130
7	446. 20	14. 15	999	5. 20	20. 34	158
8	459. 30	15. 29	1, 007	5. 30	18. 45	116
Mean	452. 00	14. 73	1, 043	5. 31	19. 34	135
S.D	6. 68	. 57	206	. 23	. 95	(5)
C.V. (%)	1	4	20	4	5	(5)
Diet 8:						
Subject 27:						
Period 1	475. 20	21. 36	1, 590	6. 18	14. 28	66
2	480. 20	19. 96	1, 334	6. 10	12. 38	55
3	480. 60	16. 38	1, 128	5. 90	16. 66	106
4	478. 60	16. 10	1, 021	5. 77	16. 35	102
5	479. 80	16. 95	1, 171	5. 92	14. 98	89
Mean	478. 88	17. 55	1, 249	5. 97	14. 93	84
S.D	2. 19	2. 16	281	. 22	1. 73	(5)
C.V. (%)	0	12	22	4	12	(5)
Diet 8′:						
Subject 27:						
Period 6	468. 20	15. 49	1, 354	5. 73	15. 52	80
7	468. 80	16. 04	1, 181	5. 81	16. 26	103
8	474. 20	15. 20	1, 115	5. 60	18. 87	70
Mean	470. 40	15. 58	1, 219	5. 71	16. 88	84
S.D	3. 30	. 43	224	. 15	1. 76	(5)
C.V. (%)	1	3	18	3	10	(5)
Diet 8:						
Subject 28:						
Period 1	475. 20	20. 16	1, 482	5. 77	18. 45	104
2	479. 70	15. 91	1, 229	5. 85	13. 26	84
3	480. 60	14. 54	1, 033	5. 64	15. 88	83
4	467. 40	15. 57	1, 094	5. 68	16. 65	113
5	479. 80	15. 99	1, 211	5. 60	17. 61	112
Mean	476. 54	16. 43	1, 210	5. 71	16. 37	99
S.D	5. 53	2. 16	259	. 16	1. 99	(5)
C.V. (%)	1	13	21	3	12	(5)
Diet 8′:						
Subject 28:						
Period 6	468. 20	14. 80	1, 198	5. 49	16. 18	88
7	463. 30	14. 23	978	5. 47	16. 40	96
8	460. 20	14. 46	992	5. 46	16. 08	93
Mean	463. 90	14. 50	1, 061	5. 47	16. 22	92
S.D	4. 03	. 29	233	. 10	. 16	(5)
C.V. (%)	1	2	22	2	1	(5)

See footnotes at end of table, p. 33.

TABLE 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1958						
EIGHT 6-DAY PERIODS						
VIRGINIA—Continued						
Diet 8:						
Subject 29:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	475.20	19.89	1,740	5.98	13.70	57
2	480.20	18.34	1,273	6.14	11.95	49
3	480.60	15.79	1,295	5.80	12.40	38
4	478.60	19.78	1,417	5.62	16.15	79
5	479.80	15.62	1,127	5.46	18.93	90
Mean	478.88	17.88	1,370	5.80	14.63	63
S.D	2.19	2.08	377	.37	2.91	(5)
C.V. (%)	0	12	28	6	20	(5)
Diet 8′:						
Subject 29:						
Period 6	468.20	15.50	1,176	5.45	12.18	48
7	468.80	15.83	1,276	5.56	12.72	47
8	474.20	15.31	1,345	5.56	14.32	60
Mean	470.40	15.55	1,265	5.52	13.07	52
S.D	3.30	.26	296	.18	1.11	(5)
C.V. (%)	1	2	23	3	8	(5)
Diet 8:						
Subject 30:						
Period 1	475.20	17.42	1,408	5.73	12.50	51
2	480.20	17.85	1,223	5.67	13.48	60
3	480.60	16.54	1,045	5.56	13.32	72
4	478.40	17.44	1,058	5.50	18.30	108
5	479.80	17.92	1,163	5.65	18.86	116
Mean	478.84	17.43	1,179	5.62	15.29	81
S.D	2.20	.55	296	.19	3.03	(5)
C.V. (%)	0	3	25	3	20	(5)
Diet 8′:						
Subject 30:						
Period 6	465.40	15.02	873	5.43	19.56	123
7	506.80	15.00	843	5.32	21.36	155
8	512.20	14.50	750	5.26	20.40	127
Mean	494.80	14.84	821	5.34	20.44	135
S.D	25.60	.29	260	.14	.90	(5)
C.V. (%)	5	2	32	3	4	(5)
Diet 8:						
Subject 31:						
Period 1	475.20	15.55	1,362	6.03	13.92	67
2	480.20	15.57	1,238	6.00	11.52	57
3	480.60	15.11	1,097	5.79	16.30	84
4	478.60	15.91	1,150	5.62	18.42	136
5	479.80	15.52	1,178	5.52	17.70	117
Mean	478.88	15.53	1,205	5.79	15.57	92
S.D	2.19	.28	184	.24	2.84	(5)
C.V. (%)	0	2	15	4	18	(5)

See footnotes at end of table, p. 33.

TABLE 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1958						
EIGHT 6-DAY PERIODS						
VIRGINIA—Continued						
Diet 8′:						
Subject 31:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 6	464. 30	15. 14	1, 165	5. 49	19. 83	151
7	468. 80	14. 32	1, 006	5. 37	20. 40	126
8	474. 20	14. 34	920	5. 30	17. 85	144
Mean	469. 10	14. 60	1, 032	5. 39	19. 36	139
S.D	4. 96	. 47	282	. 16	1. 34	(5)
C.V. (%)	1	3	27	3	7	(5)
Diet 8:						
Subject 32:						
Period 1	475. 20	20. 04	1, 486	6. 02	10. 55	36
2	480. 20	16. 58	1, 429	5. 91	15. 20	54
3	480. 00	17. 04	1, 316	5. 87	13. 52	73
4	465. 10	18. 29	1, 251	6. 08	19. 26	88
5	479. 80	17. 10	1, 308	5. 86	19. 56	97
Mean	476. 06	17. 81	1, 358	5. 95	15. 62	70
S.D	6. 47	1. 40	176	. 20	3. 84	(5)
C.V. (%)	1	8	13	3	25	(5)
Diet 8′:						
Subject 32:						
Period 6	468. 20	16. 59	1, 261	5. 70	19. 25	96
7	468. 80	18. 29	1, 110	5. 63	19. 81	104
8	474. 20	15. 27	1, 023	5. 36	20. 52	103
Mean	470. 40	16. 72	1, 132	5. 56	19. 86	101
S.D	3. 30	1. 51	233	. 21	. 64	(5)
C.V. (%)	1	9	21	4	3	(5)
Diet 8:						
Subject 33:						
Period 1	475. 20	18. 98	1, 545	5. 75	14. 22	62
2	480. 20	18. 59	1, 247	5. 62	12. 20	54
3	480. 60	16. 48	1, 024	5. 53	15. 17	100
4	478. 60	17. 89	1, 056	5. 55	15. 10	105
5	479. 80	18. 30	1, 146	5. 48	11. 60	73
Mean	478. 88	18. 05	1, 204	5. 59	13. 66	79
S.D	2. 19	. 96	323	. 18	1. 66	(5)
C.V. (%)	0	5	27	3	12	(5)
Diet 8′:						
Subject 33:						
Period 6	468. 20	17. 33	1, 463	5. 42	14. 79	82
7	468. 80	16. 80	1, 062	5. 38	15. 78	90
8	474. 20	16. 51	891	5. 28	13. 80	61
Mean	470. 40	16. 88	1, 143	5. 36	14. 79	78
S.D	3. 30	. 42	378	. 11	. 99	(5)
C.V. (%)	1	2	33	2	7	(5)

See footnotes at end of table, p. 33.

TABLE 8.—DRY MATTER AND OTHER PHYSICAL MEASUREMENTS (FOOD, URINE, FECES): *Mean daily dry matter, urine volume, urine pH, and fecal wet weight for preadolescent girls in 4 metabolic studies*—Con.

Year, location, diet, subject, and period	Food, dry matter	Urine			Feces	
		Dry matter	Volume	pH	Dry matter	Wet weight
1958						
EIGHT 6-DAY PERIODS						
VIRGINIA—Continued						
Diet 8:						
Subject 34:	*Grams*	*Grams*	*Ml.*		*Grams*	*Grams*
Period 1	475.20	23.36	1,910	5.78	12.65	48
2	480.20	18.02	1,620	5.59	17.35	88
3	480.60	18.51	1,496	5.45	13.12	[6] 68
4	478.60	19.35	1,500	5.51	17.58	73
5	479.80	19.01	1,743	5.51	21.36	83
Mean	478.88	19.65	1,645	5.56	16.41	72
S.D	2.19	2.13	322	.18	3.60	(5)
C.V. (%)	0	11	20	3	22	(5)
Diet 8′:						
Subject 34:						
Period 6	467.80	17.18	1,709	5.38	14.01	71
7	468.80	17.28	1,663	5.32	17.82	89
8	474.20	16.59	1,523	5.32	16.20	78
Mean	470.27	17.02	1,630	5.34	16.01	79
S.D	3.44	.37	209	.15	1.91	(5)
C.V. (%)	1	2	13	3	12	(5)
Diet 8:						
Subject 35:						
Period 1	475.20	21.20	1,373	5.63	17.90	40
2	505.90	20.82	1,583	5.78	13.08	40
3	490.20	18.94	1,299	5.95	14.77	64
4	488.20	19.41	1,136	5.80	14.40	61
5	527.40	19.16	1,291	5.69	18.96	105
Mean	497.38	19.91	1,336	5.77	15.82	62
S.D	20.01	1.03	325	.21	2.49	(5)
C.V. (%)	4	5	24	4	16	(5)
Diet 8′:						
Subject 35:						
Period 6	506.20	18.07	1,274	5.43	14.76	74
7	522.40	17.91	955	5.33	18.21	116
8	537.40	18.37	1,093	5.55	15.90	76
Mean	522.00	18.12	1,116	5.44	16.29	89
S.D	15.60	.23	274	.15	1.76	(5)
C.V. (%)	3	1	25	3	11	(5)
Diet 8 (12 subjects):						
Mean	479.34	17.39	1,279	5.68	15.85	84
S.D	8.62	1.93	313	.30	2.82	(5)
C.V. (%)	2	11	24	5	18	(5)
Diet 8′ (12 subjects):						
Mean	476.65	15.77	1,148	5.39	17.20	99
S.D	20.49	1.23	327	.24	2.44	(5)
C.V. (%)	4	8	29	4	14	(5)

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[1] Wet pants noted one time.
[2] Wet the bed one time.
[3] Periods 3 and 4 combined.
[4] Periods 1 and 2 combined.
[5] Data not available.
[6] Panties contaminated with small amount of feces.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*

[1954, 1956, 1957, 1958—all periods except alternate periods for energy and fat in 1954 and 1956]

Year, location, diet, subject, and period	Subject's weight	Energy[1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1954											
SIXTEEN 4-DAY PERIODS											
TENNESSEE:											
Diet 1:											
Subject 1:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	24. 4	------	------	------	------	------	10. 80	7. 00	1. 26	2. 54	573
2	24. 5	1, 944	58. 2	93. 9	69. 7	3. 8	9. 54	7. 04	1. 01	1. 49	562
3	24. 6	------	------	------	------	------	10. 60	7. 60	1. 19	1. 81	592
4	24. 8	2, 056	63. 1	103. 5	73. 2	3. 7	10. 10	7. 42	1. 15	1. 53	549
5	25. 0	------	------	------	------	------	10. 20	7. 60	1. 16	1. 44	576
6	25. 1	2, 052	58. 9	112. 6	64. 0	3. 5	10. 03	6. 97	1. 26	1. 80	547
7	25. 2	------	------	------	------	------	10. 40	7. 60	1. 24	1. 56	610
8	25. 6	2, 013	68. 6	107. 8	60. 7	3. 6	10. 42	8. 17	1. 18	1. 07	638
9	25. 4	------	------	------	------	------	10. 60	7. 80	1. 21	1. 59	585
10	25. 4	2, 005	63. 2	112. 7	69. 7	3. 7	9. 95	7. 99	1. 15	. 81	588
11	25. 6	------	------	------	------	------	10. 00	8. 00	1. 25	. 75	602
12	25. 6	2, 018	66. 2	107. 6	71. 6	3. 6	9. 88	8. 40	1. 22	. 26	615
13	25. 9	------	------	------	------	------	10. 20	8. 00	1. 18	1. 02	590
14	26. 0	1, 941	59. 9	104. 6	64. 5	3. 7	9. 92	7. 70	1. 18	1. 04	578
15	26. 0	------	------	------	------	------	10. 20	8. 00	1. 21	. 99	600
16	25. 8	2, 048	61. 8	131. 8	66. 4	6. 1	10. 23	7. 31	1. 38	1. 54	536
Mean	------	2, 010	62. 5	109. 3	67. 5	4. 0	10. 19	7. 66	1. 20	1. 33	588
S.D	------	46	3. 6	10. 9	4. 3	. 9	. 32	. 43	. 08	. 53	75
C.V. (%)	------	2	6	10	6	22	3	6	7	40	13
Diet 1:											
Subject 2:											
Period 1	25. 2	------	------	------	------	------	10. 80	7. 00	. 75	3. 05	592
2	25. 4	1, 944	58. 2	77. 3	69. 7	3. 9	9. 54	6. 93	. 69	1. 92	582
3	25. 4	------	------	------	------	------	10. 60	7. 80	. 89	1. 91	645
4	25. 6	2, 056	63. 9	88. 1	73. 2	4. 2	10. 10	7. 90	. 87	1. 33	622
5	25. 6	------	------	------	------	------	10. 40	7. 20	. 91	2. 29	618
6	25. 8	2, 052	64. 6	81. 6	64. 0	3. 8	10. 03	7. 75	. 77	1. 51	598
7	26. 0	------	------	------	------	------	10. 40	8. 60	. 84	. 96	662
8	26. 1	2, 013	69. 8	73. 3	60. 7	3. 8	10. 42	8. 31	. 69	1. 42	670
9	26. 1	------	------	------	------	------	10. 20	8. 20	. 83	1. 17	627
10	26. 3	2, 005	66. 3	138. 0	69. 7	7. 5	9. 95	8. 05	1. 21	. 69	654
11	26. 3	------	------	------	------	------	------	------	------	------	------
12	25. 8	1, 804	52. 3	92. 9	61. 3	4. 9	8. 92	7. 19	. 90	. 83	551
13	25. 9	------	------	------	------	------	10. 20	7. 40	. 99	1. 81	594
14	26. 1	716	61. 7	122. 5	28. 3	9. 0	3. 47	7. 10	. 79	−4. 42	592
15	25. 2	------	------	------	------	------	9. 40	7. 40	1. 05	. 95	560
16	25. 4	1, 876	62. 5	82. 3	63. 3	3. 9	9. 68	7. 57	. 82	1. 29	569
Mean	------	1, 808	62. 4	94. 5	61. 3	5. 1	9. 61	7. 63	. 87	1. 11	609
S.D	------	450	5. 3	23. 2	14. 1	2. 0	1. 77	. 51	. 14	1. 65	65
C.V. (%)	------	25	8	25	23	39	18	7	16	149	11

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1954											
SIXTEEN 4-DAY PERIODS											
TENNESSEE—Continued											
Diet 1:											
Subject 3:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	22. 4						10. 80	7. 00	1. 00	2. 80	602
2	22. 6										
3							9. 00	6. 80	. 84	1. 36	554
4	21. 9	1, 575	53. 5	82. 4	51. 7	2. 1	8. 10	6. 79	. 83	. 48	515
5	22. 1						8. 16	6. 20	. 75	1. 21	586
6	22. 2	2, 052	62. 5	111. 6	64. 0	3. 9	10. 03	7. 48	1. 04	1. 51	605
7	22. 4						7. 82	7. 00	. 82	. 00	566
8	22. 6	1, 621	55. 2	62. 4	48. 5	2. 3	8. 34	6. 89	. 64	. 81	552
9	22. 6						8. 48	6. 40	. 94	1. 14	507
10	22. 5	1, 806	57. 8	71. 1	62. 7	2. 7	8. 96	7. 03	. 78	1. 15	545
11	22. 5						10. 00	8. 20	. 81	. 99	583
12	22. 7	2, 018	66. 5	94. 7	71. 6	4. 2	9. 88	8. 38	. 98	. 52	590
13	22. 7						10. 20	8. 20	. 96	1. 04	563
14	22. 9	1, 941	66. 4	82. 5	64. 5	3. 1	9. 92	8. 26	. 89	. 77	578
15	23. 2						7. 20	6. 20	1. 16	—. 16	556
16	22. 4	1, 128	50. 1	70. 6	34. 7	4. 9	5. 43	5. 70	. 48	—. 75	433
Mean		1, 734	58. 9	82. 2	56. 8	3. 3	8. 82	7. 10	. 86	. 86	558
S.D		325	6. 4	16. 7	12. 6	1. 0	1. 40	. 84	. 17	. 82	59
C.V. (%)		19	11	20	22	30	16	12	20	95	10
Diet 1:											
Subject 4:											
Period 1	32. 7						10. 80	6. 60	. 85	3. 35	658
2	32. 7	1, 944	68. 3	62. 4	69. 7	2. 8	9. 54	8. 31	. 63	. 60	668
3	32. 6						10. 60	7. 20	1. 02	2. 38	640
4	32. 5	2, 066	68. 1	69. 5	73. 2	2. 9	10. 10	8. 07	. 77	1. 26	648
5	32. 5						10. 20	7. 40	. 93	1. 87	624
6	32. 6	2, 057	71. 7	72. 4	64. 0	3. 1	10. 03	8. 27	. 82	. 94	688
7	32. 5						10. 40	8. 80	. 97	. 63	672
8	32. 6	2, 019	70. 3	71. 1	60. 7	3. 0	10. 42	8. 43	. 76	1. 23	688
9	32. 7						10. 60	8. 20	. 86	1. 54	646
10	32. 7	2, 010	68. 7	67. 6	69. 7	2. 9	9. 95	8. 17	. 73	1. 05	675
11	32. 6						10. 00	8. 00	. 91	1. 09	653
12	32. 8	2, 018	67. 5	88. 7	71. 6	4. 6	9. 88	8. 16	. 89	. 83	650
13	32. 7						10. 20	7. 60	. 82	1. 78	662
14	32. 7	1, 941	69. 2	66. 1	64. 5	3. 2	9. 92	8. 26	. 69	. 97	681
15	32. 8						10. 20	7. 00	. 80	2. 40	662
16	32. 7	2, 075	49. 6	85. 2	66. 4	3. 6	10. 23	6. 00	. 94	3. 29	654
Mean		2, 016	66. 7	72. 9	67. 5	3. 3	10. 19	7. 78	. 84	1. 58	660
S.D		51	7. 0	9. 3	4. 3	. 6	. 32	. 75	. 11	. 87	82
C.V. (%)		3	10	13	6	18	3	10	13	55	12

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1954											
SIXTEEN 4-DAY PERIODS											
TENNESSEE—Continued											
Diet 1:											
Subject 5:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	30.3						10.80	7.20	1.61	1.99	632
2	30.3	1,945	58.0	71.5	69.7	3.3	9.54	6.81	.76	1.97	559
3	30.5						10.60	7.80	.99	1.81	647
4	30.5	2,056	60.1	78.1	73.2	3.6	10.10	7.12	.82	2.16	602
5	31.0						10.20	9.20	.94	.06	616
6	31.1	2,052	54.2	81.8	64.0	3.6	10.03	6.41	.87	2.75	523
7	31.2						10.40	8.80	.99	.61	670
8	31.7	2,013	69.2	81.1	60.7	3.5	10.42	8.10	.85	1.47	646
9	31.8						10.60	6.80	1.04	2.76	541
10	31.8	2,004	65.9	91.0	69.7	3.5	9.95	7.82	.91	1.22	611
11	31.2						10.00	8.20	.80	1.00	608
12	31.7	2,018	70.7	97.4	71.6	4.8	9.88	8.29	1.02	.57	642
13	31.9						10.00	8.00	1.40	.60	635
14	31.3	1,475	69.7	58.7	45.0	2.7	7.75	8.03	.59	−.87	642
15	31.4						10.20	7.80	.97	1.43	563
16	31.3	1,897	60.4	72.8	66.5	3.3	9.30	7.89	.78	.63	586
Mean		1,932	63.5	79.0	65.0	3.5	9.99	7.77	.96	1.26	608
S.D.		192	6.2	12.0	9.1	.6	.71	.74	.25	.98	92
C.V. (%)		10	10	15	14	17	7	10	26	78	15
Diet 1:											
Subject 6:											
Period 1	28.6						10.80	7.60	.89	2.31	636
2	29.1	1,944	61.4	109.6	69.7	4.6	9.54	7.56	1.14	.84	636
3	28.8						10.60	7.00	.59	3.01	644
4	29.1	2,055	60.4	86.2	73.2	3.3	10.10	7.27	.84	1.99	614
5	29.2						10.20	8.00	.97	1.23	659
6	29.3	2,057	65.8	85.3	64.0	3.4	10.03	8.17	.82	1.04	656
7	29.3						8.60	8.00	.81	−.21	662
8	29.4	2,013	64.8	101.0	60.7	3.4	10.42	8.01	.91	1.50	660
9	29.6						10.60	7.40	.91	2.29	605
10	29.4	2,004	66.1	91.5	69.7	3.2	9.95	8.07	.91	.97	664
11	29.4						10.00	7.60	.96	1.44	622
12	29.7	2,018	61.3	94.0	71.6	3.3	9.88	7.25	.94	1.69	633
13	29.4						10.20	7.80	.80	1.60	645
14	29.6	1,941	53.7	89.4	64.5	3.2	9.92	6.62	.94	2.36	574
15	29.7						10.20	8.00	.93	1.27	669
16	29.6	2,074	64.9	83.8	66.4	3.1	10.23	7.85	.85	1.53	641
Mean		2,013	62.3	92.6	67.5	3.4	10.08	7.64	.89	1.55	639
S.D.		50	4.1	8.8	4.3	.5	.50	.44	.11	.75	83
C.V. (%)		2	7	10	6	15	5	6	12	48	13
6 subjects (Tenn.):											
Mean		1,923	62.8	88.6	64.4	3.8	9.83	7.60	.94	1.29	610
S.D.		252	5.7	18.2	9.3	1.2	1.07	.66	.19	.99	82
C.V. (%)		13	9	21	14	32	11	9	20	77	13

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1954											
SIXTEEN 4-DAY PERIODS											
LOUISIANA:											
Diet 1:											
Subject 7:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	27.5	-------	-------	-------	-------	-------	11.48	6.69	1.01	3.78	495
2	28.0	-------	-------	-------	62.8	4.0	-------	-------	-------	-------	-------
3	28.6	-------	-------	-------	-------	-------	11.28	7.85	.99	2.44	540
4	28.9	1,943	64.6	104.9	69.2	4.1	11.06	8.31	1.03	1.72	550
5	28.4	-------	-------	-------	-------	-------	11.22	8.78	1.05	1.39	570
6	28.4	1,982	62.0	130.6	64.6	4.4	11.04	7.91	1.37	1.76	548
7	28.2	-------	-------	-------	-------	-------	11.38	7.94	1.29	2.15	552
8	28.4	2,023	68.3	100.1	68.6	3.7	11.44	8.57	1.10	1.77	590
9	28.4	-------	-------	-------	-------	-------	11.20	8.60	1.05	1.55	550
10	28.6	2,007	66.3	104.2	65.8	3.7	11.14	8.68	1.12	1.34	557
11	28.9	-------	-------	-------	-------	-------	10.80	9.00	1.12	.68	578
12	29.3	2,013	72.5	102.4	69.9	3.5	11.34	9.15	.97	1.22	595
13	28.9	-------	-------	-------	-------	-------	11.28	8.83	1.14	1.31	582
14	29.1	1,984	68.9	91.3	66.4	3.2	11.22	8.52	1.00	1.70	570
15	29.3	-------	-------	-------	-------	-------	11.15	8.38	1.10	1.67	545
16	30.0	2,011	66.9	94.0	68.7	3.4	11.31	8.18	1.06	2.07	640
Mean	-------	1,995	67.1	103.9	67.0	3.8	11.22	8.36	1.09	1.77	563
S.D.	-------	27	3.3	12.8	2.5	.4	.17	.60	.11	.70	64
C.V. (%)	-------	1	5	12	4	11	2	7	10	39	11
Diet 1:											
Subject 8:											
Period 1	42.7	-------	-------	-------	-------	-------	11.48	8.42	.96	2.10	672
2	42.3	2,005	71.7	79.1	62.8	3.3	11.24	8.95	1.02	1.27	700
3	42.3	-------	-------	-------	-------	-------	11.28	7.71	1.03	2.54	643
4	42.0	1,948	68.2	75.5	69.2	3.3	11.06	8.31	.98	1.77	710
5	42.0	-------	-------	-------	-------	-------	11.22	8.48	.94	1.80	700
6	41.4	1,982	67.9	93.4	64.6	3.4	11.04	8.04	1.21	1.79	695
7	41.4	-------	-------	-------	-------	-------	11.38	8.02	1.24	2.12	705
8	41.4	2,023	70.9	72.8	68.6	2.8	11.44	8.26	.95	2.23	730
9	41.4	-------	-------	-------	-------	-------	11.20	8.65	.96	1.59	698
10	41.6	2,007	67.0	82.8	65.8	3.5	11.14	8.10	1.04	2.00	690
11	41.4	-------	-------	-------	-------	-------	10.80	8.53	.96	1.31	722
12	41.6	2,013	74.9	87.2	69.9	3.7	11.34	8.94	1.08	1.32	740
13	41.4	-------	-------	-------	-------	-------	11.28	9.09	1.01	1.18	715
14	41.6	2,000	71.7	75.4	66.4	3.3	11.22	8.48	.91	1.83	722
15	41.6	-------	-------	-------	-------	-------	11.15	8.69	1.01	1.45	755
16	41.6	2,016	70.7	76.1	68.7	3.7	11.31	8.42	1.00	1.89	742
Mean	-------	1,999	70.4	80.3	67.0	3.4	11.22	8.44	1.02	1.76	712
S.D.	-------	24	2.6	7.0	2.5	.3	.17	.37	.09	.39	50
C.V. (%)	-------	1	4	9	4	9	2	4	9	22	7

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1954											
SIXTEEN 4-DAY PERIODS											
LOUISIANA—Continued											
Diet 1:											
Subject 9:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	34.3										642
2	35.2	1,999	69.2	59.3	62.8	2.9	11.24	8.43	.55	2.26	620
3	35.2						11.28	8.45	.89	1.94	668
4	35.2	1,948	71.0	89.7	69.2	3.8	11.06	8.36	1.02	1.68	658
5	34.9						11.22	8.72	1.06	1.44	658
6	34.5	1,982	69.3	102.7	64.6	4.2	11.04	8.15	1.33	1.56	660
7	34.5						11.38	7.99	1.21	2.18	668
8	34.5	2,023	62.2	86.8	68.6	3.7	11.44	7.27	1.00	3.17	600
9	35.0						11.20	8.75	.54	1.91	652
10	34.8	2,007	72.3	88.9	65.8	4.0	11.14	8.70	1.03	1.41	675
11	35.2						10.80	8.31	1.10	1.39	638
12	35.0	2,013	78.3	90.6	69.9	3.6	11.34	9.62	1.09	.63	748
13	35.2						11.28	9.12	1.16	1.00	720
14	35.2	2,000	70.4	76.5	66.4	3.6	11.22	8.41	.94	1.87	645
15	35.5						11.15	8.46	.89	1.80	678
16	35.7	2,016	73.8	79.9	68.7	4.0	11.31	8.92	.96	1.43	688
Mean		1,998	70.8	84.3	67.0	3.7	11.21	8.51	.98	1.71	663
S.D		24	4.6	12.8	2.5	.4	.16	.53	.21	.59	55
C.V. (%)		1	6	15	4	11	1	6	22	34	8
Diet 1:											
Subject 10:											
Period 1	23.6						11.48	7.62	.99	2.87	518
2	24.1	2,005	67.4	79.8	62.8	3.1	11.24	8.33	1.10	1.81	515
3	24.3						11.28	7.89	.89	2.50	528
4	24.3	1,943	67.0	83.0	69.2	3.0	11.06	8.25	1.18	1.63	532
5	24.3						11.22	8.52	1.13	1.57	528
6	24.3	1,982	64.2	78.7	64.6	2.9	11.04	7.81	1.20	2.03	515
7	24.3						11.38	8.47	.97	1.94	547
8	24.3	2,023	68.7	83.0	68.6	3.2	11.44	8.21	1.09	2.14	565
9	24.5						11.20	8.66	1.05	1.49	532
10	24.5	2,007	68.0	77.0	65.8	3.0	11.14	8.47	1.08	1.59	568
11	24.5						10.80	8.54	1.15	1.11	540
12	24.5	2,008	72.6	66.3	69.9	2.6	11.34	9.05	.95	1.34	610
13	24.8						11.28	8.58	1.28	1.42	550
14	24.9	2,005	66.6	99.2	66.4	2.5	11.22	8.39	1.02	1.81	532
15	25.0						11.15	7.70	1.20	2.25	565
16	25.0	2,021	64.5	73.6	68.7	2.8	11.31	8.16	1.01	2.14	572
Mean		1,999	67.4	80.1	67.0	2.9	11.22	8.29	1.08	1.85	545
S.D		26	2.6	9.5	2.5	.2	.17	.38	.11	.46	42
C.V. (%)		1	4	12	4	7	2	5	10	25	8

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy[1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1954 SIXTEEN 4-DAY PERIODS											
LOUISIANA—Continued											
Diet 1:											
Subject 11:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	33.2						11.48	7.94	.86	2.68	580
2	33.4	1,999	62.6	68.7	62.8	2.8	11.24	7.58	.73	2.93	528
3	33.4						11.28	7.09	.84	3.35	505
4	33.0	1,943	66.2	90.2	69.2	3.6	11.06	7.90	.98	2.18	610
5	33.2						11.22	8.92	.63	1.67	625
6	33.4	1,982	71.7	85.7	64.6	3.4	11.04	8.71	.95	1.38	615
7	33.0						11.38	7.87	.91	2.60	588
8	33.4	2,023	73.4	78.6	68.6	3.1	11.44	8.82	.78	1.84	635
9	33.0						11.20	8.95	.77	1.48	625
10	33.4	2,007	72.6	83.5	65.8	3.2	11.14	8.93	.91	1.30	620
11	33.4						10.80	8.11	.85	1.84	585
12	33.6	2,013	65.6	71.3	69.9	2.7	11.34	7.88	.82	2.64	608
13	33.4						11.28	9.39	.93	.96	662
14	34.3	2,000	74.9	111.6	66.4	3.3	11.22	8.93	.97	1.32	628
15	34.3						11.15	8.30	.98	1.87	608
16	33.9	2,005	64.5	92.2	68.7	3.1	11.31	7.82	1.03	2.46	638
Mean	-------	1,996	68.9	85.2	67.0	3.2	11.22	8.32	.87	2.03	604
S.D.	-------	25	4.7	13.5	2.5	.3	.17	.64	.11	.68	64
C.V. (%)	-------	1	7	16	4	9	2	8	13	33	11
5 subjects (La.):											
Mean	-------	1,998	69.0	86.3	67.0	3.4	11.22	8.38	1.01	1.83	618
S.D.	-------	24	3.8	13.8	2.4	.5	.16	.51	.15	.57	83
C.V. (%)	-------	1	6	16	4	15	1	6	15	31	13
11 subjects in 1954:											
Mean	-------	1,957	65.6	87.5	65.6	3.6	10.46	7.96	0.97	1.53	614
S.D.	-------	190	5.8	16.3	7.1	1.0	1.06	.71	.18	.87	83
C.V. (%)	-------	10	9	19	11	28	10	9	19	57	13
1956 FOURTEEN 4-DAY PERIODS											
VIRGINIA:											
Diet 2:											
Subject 12:											
Period 1	22.1						7.87	5.62	.93	1.32	390
2	22.3	1,810	44.2	90.1	60.0	2.6	7.71	5.12	.95	1.64	352
3	22.0						7.69	5.46	.78	1.45	375
4	22.2	2,065	47.6	82.5	62.6	2.4	7.81	5.04	.85	1.92	314
5	22.5						7.78	6.01	.90	.87	427
6	22.6	1,990	48.5	90.8	65.7	2.6	7.91	5.60	1.02	1.29	387
7	22.5						7.97	4.90	.92	2.15	390
8	22.8	1,374	68.8	59.4	36.8	2.2	5.07	6.48	.54	−1.95	519
9							7.27	6.04	.72	.51	404
10	22.7	1,927	49.7	83.0	60.4	2.2	7.81	5.58	.88	1.35	392
11	22.7						7.59	5.54	1.03	1.02	396
12	22.8	2,067	47.1	109.7	68.7	2.1	7.83	5.56	.93	1.34	395
13	22.7						7.71	5.08	.81	1.82	378
14	22.9	1,986	46.4	101.0	57.0	2.3	7.73	5.28	.93	1.52	424
Mean	-------	1,888	50.3	88.1	58.7	2.3	7.55	5.52	.87	1.16	396
S.D.	-------	243	8.3	15.9	10.4	.2	.73	.44	.13	.99	87
C.V. (%)	-------	13	16	18	18	9	10	8	15	85	22

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy[1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1956											
FOURTEEN 4-DAY PERIODS											
VIRGINIA—Continued											
Diet 2:											
Subject 13:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	25.0	------	------	------	------	------	7.87	5.60	0.75	1.52	532
2	24.8	1,810	54.6	85.9	60.6	2.8	7.71	5.72	.96	1.03	475
3	24.8	------	------	------	------	------	7.69	5.46	.65	1.58	430
4	24.9	2,065	53.2	63.8	62.6	2.0	7.81	5.76	.75	1.30	462
5	25.1	------	------	------	------	------	7.78	5.52	.88	1.38	446
6	25.2	1,990	52.8	72.0	65.7	2.3	7.91	5.92	.76	1.23	476
7	25.2	------	------	------	------	------	7.97	5.66	.83	1.48	464
8	25.4	1,998	51.8	75.2	62.5	2.4	7.87	5.67	.80	1.40	460
9	25.3	------	------	------	------	------	7.70	5.46	.69	1.55	444
10	25.5	1,927	52.2	72.2	60.4	2.4	7.81	5.76	.81	1.24	429
11	25.4	------	------	------	------	------	7.59	5.68	.73	1.18	434
12	25.5	2,067	50.1	78.0	68.7	2.6	7.83	5.56	.82	1.45	419
13	25.7	------	------	------	------	------	7.71	5.80	.83	1.08	442
14	25.4	1,986	47.2	66.5	57.0	2.2	7.73	5.72	.72	1.29	426
Mean	------	1,978	51.7	73.4	62.4	2.4	7.78	5.66	.78	1.34	453
S.D.	------	88	2.4	7.3	3.9	.3	.10	.13	.08	.17	53
C.V. (%)	------	4	5	10	6	12	1	2	10	13	12
Diet 2:											
Subject 14:											
Period 1	24.8	------	------	------	------	------	7.87	5.75	.89	1.23	615
2	24.7	1,810	50.8	76.3	60.0	2.0	7.71	5.68	.78	1.25	521
3	24.7	------	------	------	------	------	7.69	5.72	.94	1.03	512
4	24.7	2,065	54.2	79.7	62.6	2.1	7.81	5.88	.85	1.08	516
5	24.9	------	------	------	------	------	7.78	5.50	.90	1.38	479
6	24.9	1,990	52.8	85.7	65.7	2.2	7.91	5.74	.83	1.34	526
7	24.9	------	------	------	------	------	7.97	5.76	.84	1.37	525
8	25.0	1,998	48.8	86.9	62.5	2.4	7.87	5.58	.84	1.45	534
9	25.1	------	------	------	------	------	7.70	5.60	.82	1.28	545
10	25.4	1,927	49.9	90.1	60.4	2.5	7.81	5.88	.94	.99	526
11	25.3	------	------	------	------	------	7.59	6.00	1.10	.49	508
12	25.1	2,067	48.8	71.9	68.7	2.0	7.83	5.68	.73	1.42	496
13	25.4	------	------	------	------	------	7.71	6.04	.94	.73	514
14	25.3	1,986	55.2	90.7	57.0	2.3	7.73	6.44	.92	.37	528
Mean	------	1,978	51.5	83.0	62.4	2.2	7.78	5.80	.88	1.10	525
S.D.	------	88	2.6	7.2	3.9	.2	.10	.24	.09	.35	53
C.V. (%)	------	4	5	9	6	9	1	4	10	32	10
3 subjects on diet 2:											
Mean	------	1,948	51.2	81.5	61.2	2.3	7.71	5.66	.84	1.20	458
S.D.	------	156	5.0	12.1	6.7	.2	.44	.31	.11	.61	84
C.V. (%)	------	8	10	15	11	9	6	5	13	51	18

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1956											
FOURTEEN 4-DAY PERIODS											
VIRGINIA—Continued											
Diet 3:											
Subject 15:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	26. 3	------	------	------	------	------	11. 57	9. 40	0. 82	1. 35	697
2	26. 3	1, 980	74. 2	62. 6	64. 9	2. 2	11. 77	9. 41	. 81	1. 55	593
3	26. 2	------	------	------	------	------	11. 53	9. 54	. 68	1. 31	570
4	26. 2	1, 902	78. 7	59. 5	67. 9	1. 7	11. 79	9. 50	. 73	1. 56	599
5	26. 3	------	------	------	------	------	11. 67	9. 48	. 84	1. 35	574
6	26. 5	2, 045	76. 9	52. 9	68. 2	2. 0	11. 43	9. 54	. 61	1. 28	604
7	26. 5	------	------	------	------	------	11. 81	9. 28	. 82	1. 71	607
8	26. 5	1, 937	77. 3	51. 9	70. 9	1. 8	11. 85	9. 48	. 60	1. 77	630
9	26. 6	------	------	------	------	------	11. 27	9. 56	. 60	1. 11	645
10	26. 6	1, 962	83. 4	48. 5	64. 5	1. 6	11. 65	10. 06	. 55	1. 04	590
11	26. 8	------	------	------	------	------	11. 53	9. 72	. 70	1. 11	578
12	26. 6	1, 991	80. 5	44. 5	68. 3	1. 3	11. 67	9. 84	. 50	1. 33	586
13	26. 9	------	------	------	------	------	11. 65	9. 48	. 64	1. 53	578
14	26. 8	1, 929	70. 0	53. 1	59. 2	1. 8	11. 81	8. 76	. 60	2. 45	524
Mean	------	1, 964	77. 3	53. 3	66. 3	1. 8	11. 64	9. 50	. 68	1. 46	598
S.D	------	47	4. 3	6. 2	3. 8	. 3	. 16	. 29	. 11	. 36	88
C.V. (%)	------	2	6	12	6	17	1	3	16	25	15
Diet 3:											
Subject 16:											
Period 1	27. 2	------	------	------	------	------	11. 57	9. 56	. 92	1. 09	638
2	27. 1	1, 980	72. 6	73. 6	64. 9	2. 5	11. 77	9. 50	. 89	1. 38	536
3	27. 1	------	------	------	------	------	11. 53	9. 66	. 88	. 99	531
4	26. 9	1, 902	76. 1	72. 4	67. 9	2. 4	11. 79	10. 04	. 85	. 90	525
5	27. 0	------	------	------	------	------	11. 67	9. 42	. 90	1. 35	510
6	27. 1	2, 045	77. 5	77. 1	68. 2	2. 4	11. 43	9. 92	. 90	. 61	538
7	27. 0	------	------	------	------	------	11. 81	9. 58	. 84	1. 39	550
8	27. 2	1, 937	81. 8	76. 6	70. 9	2. 4	11. 85	10. 06	. 93	. 86	569
9	27. 2	------	------	------	------	------	11. 27	9. 46	. 91	. 90	547
10	27. 3	1, 962	78. 8	67. 4	64. 5	2. 2	11. 65	10. 02	. 81	. 82	540
11	27. 2	------	------	------	------	------	11. 53	9. 96	. 97	. 60	522
12	27. 3	1, 991	76. 4	77. 0	68. 3	2. 3	11. 67	9. 70	. 85	1. 12	532
13	27. 4	------	------	------	------	------	11. 65	9. 76	. 85	1. 04	508
14	27. 4	1, 929	76. 1	81. 2	59. 2	2. 6	11. 81	9. 77	. 97	1. 07	536
Mean	------	1, 964	77. 0	75. 0	66. 3	2. 4	11. 64	9. 74	. 89	1. 01	542
S.D	------	47	2. 8	4. 4	3. 8	. 1	. 16	. 22	. 05	. 25	63
C.V. (%)	------	2	4	6	6	4	1	2	6	25	12

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1956											
FOURTEEN 4-DAY PERIODS											
VIRGINIA:—Continued											
Diet 3:											
Subject 17:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
2	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
3	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
4	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
5	27. 4	-------	-------	-------	-------	-------	11. 67	8. 38	. 95	2. 34	482
6	27. 7	2, 046	68. 7	81. 3	68. 2	2. 3	11. 43	8. 74	. 87	1. 82	514
7	27. 4	-------	-------	-------	-------	-------	11. 81	9. 09	. 79	1. 93	520
8	27. 4	1, 937	76. 9	86. 2	70. 9	2. 4	11. 85	9. 52	1. 04	1. 29	546
9	27. 6	-------	-------	-------	-------	-------	11. 27	9. 34	. 91	1. 02	542
10	27. 6	1, 962	78. 2	74. 8	64. 5	2. 0	11. 65	9. 84	. 94	. 87	504
11	27. 4	-------	-------	-------	-------	-------	11. 53	9. 84	. 83	. 86	514
12	27. 6	1, 991	77. 4	60. 6	68. 3	1. 6	11. 67	9. 68	. 78	1. 21	518
13	27. 7	-------	-------	-------	-------	-------	11. 65	9. 42	. 89	1. 34	505
14	27. 3	1, 929	77. 8	63. 5	59. 2	1. 7	11. 81	9. 78	. 80	1. 23	526
Mean	-------	1, 973	75. 8	73. 3	66. 2	2. 0	11. 63	9. 36	. 88	1. 39	517
S.D	-------	47	4. 0	11. 1	4. 5	. 4	. 18	. 49	. 08	. 49	50
C.V. (%)	-------	2	5	15	7	20	2	5	9	35	10
3 subjects on diet 3:											
Mean	-------	1, 966	76. 8	66. 6	66. 3	2. 1	11. 64	9. 56	. 81	1. 28	556
S.D	-------	45	3. 6	12. 5	3. 8	. 4	. 16	. 36	. 13	. 41	78
C.V. (%)	-------	2	5	19	6	19	1	4	16	32	14
Diet 4:											
Subject 18:											
Period 1	29. 9	-------	-------	-------	-------	-------	9. 62	6. 20	1. 15	2. 27	535
2	29. 8	2, 401	59. 3	73. 2	73. 0	2. 4	9. 46	6. 60	. 85	2. 01	435
3	29. 9	-------	-------	-------	-------	-------	9. 12	6. 35	. 86	1. 91	424
4	29. 7	-------	-------	-------	-------	-------	9. 64	6. 52	. 86	2. 26	438
5	29. 7	-------	-------	-------	-------	-------	9. 54	6. 24	1. 15	2. 15	427
6	30. 2	2, 296	55. 0	105. 6	78. 6	3. 4	9. 44	6. 16	1. 21	2. 07	434
7	29. 9	-------	-------	-------	-------	-------	9. 62	6. 62	1. 22	1. 78	476
8	30. 5	2, 406	58. 0	96. 4	75. 2	3. 4	9. 54	6. 62	1. 10	1. 82	464
9	30. 3	-------	-------	-------	-------	-------	9. 42	6. 68	1. 14	1. 60	506
10	30. 4	2, 342	65. 4	94. 2	74. 7	3. 3	9. 46	7. 36	1. 10	1. 00	486
11	30. 6	-------	-------	-------	-------	-------	9. 34	6. 84	. 92	1. 58	460
12	30. 6	2, 474	64. 6	114. 9	78. 5	4. 3	9. 56	7. 22	1. 25	1. 09	472
13	30. 8	-------	-------	-------	-------	-------	9. 12	6. 40	1. 26	1. 46	418
14	30. 6	2, 349	62. 4	68. 5	68. 1	2. 3	9. 76	7. 18	. 81	1. 77	485
Mean	-------	2, 378	60. 8	92. 1	74. 7	3. 2	9. 47	6. 64	1. 06	1. 77	462
S.D	-------	62	4. 0	18. 1	3. 9	. 7	. 18	. 39	. 17	. 39	60
C.V. (%)	-------	3	7	20	5	22	2	6	16	22	13

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN. *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1956											
FOURTEEN 4-DAY PERIODS											
VIRGINIA—Continued											
Diet 4:											
Subject 19:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	31. 4	-------	-------	-------	-------	-------	9. 62	8. 02	. 77	. 83	683
2	31. 2	2, 401	64. 1	85. 7	73. 0	2. 9	9. 46	7. 34	. 77	1. 35	553
3	31. 3	-------	-------	-------	-------	-------	9. 12	7. 20	. 92	1. 00	544
4	31. 3	-------	-------	-------	-------	-------	9. 64	7. 64	. 80	1. 20	562
5	31. 5	-------	-------	-------	-------	-------	9. 54	7. 18	. 82	1. 54	513
6	31. 6	2, 296	66. 4	112. 1	78. 6	4. 0	9. 44	7. 44	1. 11	. 89	566
7	31. 3	-------	-------	-------	-------	-------	9. 62	7. 24	. 47	1. 91	551
8	31. 9	2, 406	66. 0	78. 7	75. 2	2. 5	9. 54	7. 34	. 78	1. 42	570
9	31. 8	-------	-------	-------	-------	-------	9. 42	7. 46	. 82	1. 14	570
10	31. 9	2, 342	65. 3	127. 9	74. 7	4. 2	9. 46	7. 38	1. 30	. 78	547
11	32. 0	-------	-------	-------	-------	-------	9. 34	7. 26	. 69	1. 39	526
12	32. 0	2, 474	66. 1	88. 5	78. 5	3. 0	9. 56	7. 60	. 90	1. 06	560
13	32. 3	-------	-------	-------	-------	-------	9. 12	7. 74	. 70	. 68	548
14	32. 2	2, 349	68. 6	59. 3	68. 1	1. 8	9. 76	7. 86	. 61	1. 29	569
Mean	-------	2, 378	66. 1	92. 0	74. 7	3. 1	9. 47	7. 48	. 82	1. 18	562
S.D.	-------	62	1. 5	24. 5	3. 9	. 9	. 18	. 26	. 20	. 34	58
C.V. (%)	-------	3	2	27	5	29	2	3	24	29	10
Diet 4:											
Subject 20:											
Period 1	31. 1	-------	-------	-------	-------	-------	9. 62	7. 00	1. 12	1. 50	653
2	31. 2	2, 401	62. 9	92. 7	73. 0	3. 0	9. 46	6. 98	1. 00	1. 48	508
3	31. 5	-------	-------	-------	-------	-------	9. 12	7. 07	1. 12	. 93	506
4	31. 5	2, 326	67. 0	66. 8	75. 3	2. 2	9. 64	7. 86	. 77	1. 01	562
5	31. 8	-------	-------	-------	-------	-------	9. 54	6. 98	1. 41	1. 15	516
6	31. 8	2, 296	62. 6	101. 7	78. 6	3. 2	9. 44	7. 32	1. 09	1. 03	553
7	32. 0	-------	-------	-------	-------	-------	7. 10	6. 93	. 88	—. 71	536
8	31. 5	2, 092	57. 6	203. 1	63. 3	11. 7	8. 47	6. 64	1. 51	. 32	520
9	32. 2	-------	-------	-------	-------	-------	9. 42	6. 94	1. 08	1. 40	527
10	32. 1	2, 342	59. 0	104. 0	74. 7	3. 1	9. 46	6. 82	1. 16	1. 48	551
11	32. 4	-------	-------	-------	-------	-------	9. 34	6. 90	. 89	1. 55	538
12	32. 4	2, 474	61. 4	108. 2	78. 5	3. 9	9. 56	6. 98	1. 11	1. 47	550
13	33. 1	-------	-------	-------	-------	-------	9. 12	7. 16	. 89	1. 07	534
14	32. 9	2, 349	64. 5	96. 6	68. 1	3. 1	9. 76	7. 32	1. 06	1. 38	573
Mean	-------	2, 326	62. 1	110. 4	73. 1	4. 3	9. 22	7. 06	1. 08	1. 08	545
S.D.	-------	118	3. 2	43. 0	5. 6	3. 3	. 69	. 29	. 20	. 61	61
C.V. (%)	-------	5	5	39	8	77	7	4	19	56	11
3 subjects on diet 4:											
Mean	-------	2, 359	63. 0	98. 8	74. 1	3. 6	9. 39	7. 06	. 99	1. 34	523
S.D.	-------	87	3. 7	30. 9	4. 4	2. 1	. 43	. 46	. 22	. 55	74
C.V. (%)	-------	4	6	31	6	58	5	7	22	41	14

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1956											
FOURTEEN 4-DAY PERIODS											
VIRGINIA—Continued											
Diet 5:											
Subject 21:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	31. 4	-------	-------	-------	-------	-------	14. 23	11. 70	1. 41	1. 12	842
2	31. 3	2, 405	91. 7	71. 5	72. 5	2. 2	13. 99	11. 30	. 94	1. 75	644
3	31. 4	-------	-------	-------	-------	-------	14. 29	11. 22	. 99	2. 08	639
4	31. 4	2, 431	94. 6	71. 9	78. 5	2. 0	14. 67	11. 34	. 97	2. 36	616
5	31. 5	-------	-------	-------	-------	-------	13. 35	12. 20	1. 40	—. 25	648
6	31. 6	2, 466	91. 0	70. 0	81. 1	2. 0	13. 99	11. 90	. 95	1. 14	644
7	31. 2	-------	-------	-------	-------	-------	13. 99	12. 08	1. 15	. 76	672
8	31. 6	2, 414	99. 0	75. 0	78. 2	2. 3	14. 23	12. 32	. 99	. 92	715
9	31. 8	-------	-------	-------	-------	-------	14. 29	11. 98	1. 15	1. 16	680
10	31. 8	2, 380	95. 9	72. 8	73. 6	2. 1	14. 47	12. 26	1. 02	1. 19	646
11	31. 6	-------	-------	-------	-------	-------	13. 73	12. 40	1. 18	. 15	649
12	31. 6	2, 418	97. 3	63. 5	76. 2	2. 0	14. 37	12. 26	. 78	1. 33	640
13	31. 6	-------	-------	-------	-------	-------	13. 83	12. 12	1. 10	. 61	647
14	31. 5	2, 389	98. 0	81. 5	67. 8	2. 3	14. 25	12. 60	1. 10	. 55	662
Mean	-------	2, 415	95. 4	72. 3	75. 4	2. 1	14. 12	11. 98	1. 08	1. 06	667
S.D.	-------	28	3. 1	5. 4	4. 5	. 1	. 34	. 43	. 17	. 70	78
C.V. (%)	-------	1	3	7	6	5	2	4	16	66	12
Diet 5:											
Subject 22:											
Period 1	33. 6	-------	-------	-------	-------	-------	14. 23	11. 70	. 90	1. 63	768
2	33. 6	2, 405	102. 6	71. 9	72. 5	2. 3	13. 99	12. 22	. 89	. 88	648
3	33. 6	-------	-------	-------	-------	-------	14. 29	12. 22	. 81	1. 26	658
4	33. 5	2, 431	97. 9	58. 1	78. 5	2. 0	14. 67	12. 56	. 71	1. 40	574
5	33. 8	-------	-------	-------	-------	-------	13. 35	11. 98	. 52	. 85	610
6	33. 5	2, 466	103. 8	102. 3	81. 1	4. 0	13. 99	12. 78	1. 12	. 09	676
7	33. 3	-------	-------	-------	-------	-------	13. 99	12. 52	. 74	. 73	646
8	33. 6	2, 414	98. 8	48. 9	78. 2	1. 8	14. 23	12. 82	. 48	. 93	698
9	33. 5	-------	-------	-------	-------	-------	14. 29	12. 16	. 76	1. 37	658
10	33. 7	2, 380	99. 0	51. 4	73. 6	1. 9	14. 47	12. 88	. 56	1. 03	629
11	33. 7	-------	-------	-------	-------	-------	13. 73	12. 62	. 75	. 36	614
12	33. 7	2, 418	100. 8	105. 8	76. 2	3. 8	14. 37	12. 74	1. 12	. 51	654
13	33. 8	-------	-------	-------	-------	-------	13. 83	12. 48	. 69	. 66	622
14	33. 6	2, 389	98. 3	49. 6	67. 8	1. 7	14. 25	12. 74	. 61	. 90	621
Mean	-------	2, 415	100. 2	69. 7	75. 4	2. 5	14. 12	12. 46	. 76	. 90	648
S.D.	-------	28	2. 3	24. 8	4. 5	1. 0	. 34	. 35	. 20	. 42	91
C.V. (%)	-------	1	2	36	6	40	2	3	26	47	14

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1956											
FOURTEEN 4-DAY PERIODS											
VIRGINIA—Continued											
Diet 5:											
Subject 23:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	31. 9	------	------	------	------	------	14. 23	10. 92	1. 10	2. 21	710
2	32. 5	2, 405	93. 4	80. 1	72. 5	2. 6	13. 99	11. 48	1. 04	1. 47	560
3	32. 2	------	------	------	------	------	14. 29	11. 26	1. 20	1. 83	588
4	32. 5	2, 431	86. 0	84. 3	78. 5	2. 6	14. 67	11. 70	1. 15	1. 82	543
5	32. 7	------	------	------	------	------	13. 35	11. 38	1. 41	. 56	562
6	32. 9	2, 466	86. 8	106. 2	81. 1	3. 0	13. 99	11. 50	1. 34	1. 15	602
7	32. 7	------	------	------	------	------	13. 99	11. 06	1. 20	1. 73	578
8	33. 1	2, 414	90. 9	98. 9	78. 2	3. 2	14. 23	11. 80	1. 27	1. 16	648
9	33. 2	------	------	------	------	------	14. 29	11. 44	1. 30	1. 55	584
10	33. 6	2, 380	90. 8	80. 0	73. 6	2. 7	14. 47	11. 66	1. 07	1. 74	590
11	33. 6	------	------	------	------	------	13. 73	11. 36	1. 20	1. 17	564
12	33. 7	2, 418	92. 3	83. 6	76. 2	2. 4	14. 37	11. 94	1. 07	1. 36	592
13	33. 8	------	------	------	------	------	13. 83	11. 82	1. 19	. 82	568
14	33. 8	2, 389	85. 6	98. 4	67. 8	2. 9	14. 25	11. 22	1. 31	1. 72	545
Mean	------	2, 415	89. 4	90. 2	75. 4	2. 8	14. 12	11. 47	1. 20	1. 45	588
S.D	------	28	3. 2	10. 7	4. 5	. 3	. 34	. 30	. 11	. 44	73
C.V. (%)	------	1	4	12	6	11	2	3	9	30	12
3 subjects on diet 5:											
Mean	------	2, 415	95. 0	77. 4	75. 4	2. 5	14. 12	11. 97	1. 02	1. 14	635
S.D	------	27	5. 3	17. 7	4. 2	. 6	. 33	. 54	. 25	. 58	88
C.V. (%)	------	1	6	23	6	24	2	5	25	51	14
12 subjects in 1956:											
Mean	------	2, 172	71. 6	81. 0	69. 2	2. 6	10. 73	8. 57	0. 92	1. 24	542
S.D	------	237	17. 3	22. 4	7. 7	1. 2	2. 46	2. 47	. 21	. 54	104
C.V. (%)	------	11	24	28	11	46	23	29	23	44	19
1957											
FOUR 6-DAY PERIODS											
VIRGINIA:											
Diet 6:											
Subject 12:											
Period 1	24. 6	2, 416	38. 6	64. 8	------	------	6. 05	3. 90	0. 78	1. 37	454
2	25. 1	2, 407	38. 5	85. 2	------	------	6. 27	3. 98	1. 03	1. 26	454
3	25. 3	2, 390	39. 4	67. 4	------	------	6. 03	3. 82	. 77	1. 44	462
4	25. 5	2, 436	41. 6	75. 0	------	------	6. 31	4. 02	. 87	1. 42	451
Mean	------	2, 412	39. 5	73. 1	------	------	6. 16	3. 93	. 86	1. 37	455
S.D	------	19	1. 4	9. 2	------	------	. 15	. 09	. 12	. 08	50
C.V. (%)	------	1	4	13	------	------	2	2	14	6	11
Diet 6:											
Subject 13:											
Period 1	27. 8	2, 416	41. 3	65. 7	------	------	6. 05	4. 24	. 78	1. 03	539
2	28. 4	2, 407	41. 0	55. 0	------	------	6. 27	4. 18	. 93	1. 16	534
3	28. 5	2, 390	39. 9	74. 2	------	------	6. 03	4. 00	. 84	1. 19	493
4	28. 6	2, 436	42. 2	76. 9	------	------	6. 31	4. 02	. 88	1. 41	532
Mean	------	2, 412	41. 1	68. 0	------	------	6. 16	4. 11	. 86	1. 20	524
S.D	------	19	. 9	9. 9	------	------	. 15	. 12	. 06	. 16	49
C.V. (%)	------	1	2	15	------	------	2	3	7	13	9

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy[1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1957											
FOUR 6-DAY PERIODS											
VIRGINIA—Continued											
Diet 6:											
Subject 14:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	28. 2	2, 416	43. 9	93. 3	-------	-------	6. 05	4. 60	1. 18	. 27	668
2	28. 5	2, 407	43. 4	105. 7	-------	-------	6. 27	4. 30	. 91	1. 06	623
3	28. 6	2, 390	37. 3	78. 5	-------	-------	6. 03	3. 88	. 90	1. 25	636
4	28. 7	2, 436	45. 4	78. 8	-------	-------	6. 31	4. 56	. 89	. 86	630
Mean	-------	2, 412	42. 5	89. 1	-------	-------	6. 16	4. 34	. 97	. 86	639
S.D	-------	19	3. 6	13. 1	-------	-------	. 15	. 33	. 14	. 42	29
C.V. (%)	-------	1	8	15	-------	-------	2	8	14	49	4
Diet 6:											
Subject 15:											
Period 1	30. 2	2, 416	39. 7	56. 4	-------	-------	6. 05	3. 96	. 64	1. 45	597
2	30. 4	2, 407	49. 7	54. 7	-------	-------	6. 27	4. 29	. 60	1. 38	590
3	30. 7	2, 390	38. 3	68. 1	-------	-------	6. 03	4. 10	. 72	1. 21	590
4	30. 8	2, 436	44. 6	57. 8	-------	-------	6. 31	4. 24	. 67	1. 40	625
Mean	-------	2, 412	43. 1	59. 2	-------	-------	6. 16	4. 15	. 66	1. 36	601
S.D	-------	19	5. 2	6. 0	-------	-------	. 15	. 15	. 05	. 10	81
C.V. (%)	-------	1	12	10	-------	-------	2	4	8	7	13
Diet 6:											
Subject 17:											
Period 1	32. 0	2, 416	50. 7	81. 4	-------	-------	6. 05	4. 86	. 91	. 28	613
2	32. 2	2, 407	50. 7	61. 6	-------	-------	6. 27	4. 88	. 74	. 65	610
3	32. 1	2, 390	49. 3	64. 8	-------	-------	6. 03	4. 84	. 81	. 38	598
4	32. 4	2, 436	45. 0	75. 8	-------	-------	6. 31	4. 14	. 88	1. 29	545
Mean	-------	2, 412	48. 9	70. 9	-------	-------	6. 16	4. 68	. 84	. 65	591
S.D	-------	19	2. 7	9. 3	-------	-------	. 15	. 36	. 08	. 45	50
C.V. (%)	-------	1	6	13	-------	-------	2	8	10	69	8
Diet 6:											
Subject 36:											
Period 1	25. 9	2, 416	44. 5	69. 1	-------	-------	6. 05	4. 50	. 74	. 81	542
2	26. 4	2, 407	45. 8	79. 5	-------	-------	6. 27	4. 34	. 86	1. 07	524
3	26. 7	2, 390	48. 6	76. 2	-------	-------	6. 03	4. 96	. 83	. 24	532
4	26. 9	2, 436	46. 4	75. 7	-------	-------	6. 31	4. 38	. 79	1. 14	529
Mean	-------	2, 412	46. 3	75. 1	-------	-------	6. 16	4. 54	. 80	. 82	532
S.D	-------	19	1. 7	4. 4	-------	-------	. 15	. 28	. 05	. 41	63
C.V. (%)	-------	1	4	6	-------	-------	2	6	6	50	12
6 subjects on diet 6:											
Mean	-------	2, 412	43. 6	72. 6	-------	-------	6. 16	4. 29	. 83	1. 04	557
S.D	-------	17	4. 2	12. 2	-------	-------	. 13	. 34	. 12	. 40	82
C.V. (%)	-------	1	10	17	-------	-------	2	8	14	38	15
Diet 7:											
Subject 19:											
Period 1	34. 8	2, 575	54. 7	49. 3	-------	-------	7. 59	5. 74	0. 60	1. 25	654
2	34. 9	2, 588	51. 8	65. 0	-------	-------	7. 29	5. 40	. 66	1. 23	616
3	35. 0	2, 642	58. 0	56. 9	-------	-------	7. 31	5. 60	. 56	1. 15	771
4	35. 2	2, 626	57. 0	71. 6	-------	-------	7. 21	5. 43	. 75	1. 03	703
Mean	-------	2, 608	55. 4	60. 7	-------	-------	7. 35	5. 54	. 64	1. 16	686
S.D	-------	32	2. 8	9. 7	-------	-------	. 17	. 16	. 08	. 10	179
C.V. (%)	-------	1	5	16	-------	-------	2	3	12	9	26

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy[1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1957											
FOUR 6-DAY PERIODS											
VIRGINIA—Continued											
Diet 7:											
Subject 21:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	35.3	2,575	53.5	65.7	-------	-------	7.59	5.70	.71	1.18	724
2	35.3	2,588	55.0	64.9	-------	-------	7.29	5.62	.64	1.03	718
3	35.4	2,642	55.4	76.2	-------	-------	7.31	5.78	.74	.79	714
4	35.0	2,626	55.4	75.2	-------	-------	7.21	5.42	.77	1.02	701
Mean	-------	2,608	54.8	70.5	-------	-------	7.35	5.63	.72	1.00	714
S.D	-------	32	.9	6.0	-------	-------	.17	.15	.06	.16	55
C.V. (%)	-------	1	2	9	-------	-------	2	3	8	16	8
Diet 7:											
Subject 22:											
Period 1	37.1	2,575	54.6	58.2	-------	-------	7.59	5.79	.66	1.14	726
2	37.4	2,588	58.4	58.3	-------	-------	7.29	5.90	.74	.65	694
3	37.2	2,642	60.6	59.2	-------	-------	7.31	6.16	.62	.53	732
4	37.4	2,626	58.3	38.8	-------	-------	7.21	6.12	.56	.53	682
Mean	-------	2,608	58.0	53.6	-------	-------	7.35	5.99	.64	.71	708
S.D	-------	32	2.5	9.9	-------	-------	.17	.18	.08	.29	47
C.V. (%)	-------	1	4	18	-------	-------	2	3	12	41	7
Diet 7:											
Subject 23:											
Period 1	35.6	2,575	49.9	62.2	-------	-------	7.59	5.14	.66	1.79	658
2	36.5	2,588	49.3	78.9	-------	-------	7.29	4.96	.88	1.45	635
3	36.7	2,642	53.3	73.6	-------	-------	7.31	5.62	.80	.89	635
4	37.2	2,626	50.5	90.7	-------	-------	7.21	5.04	.96	1.21	623
Mean	-------	2,608	50.8	76.4	-------	-------	7.35	5.19	.82	1.34	638
S.D	-------	32	1.8	11.8	-------	-------	.17	.30	.13	.38	51
C.V. (%)	-------	1	4	15	-------	-------	2	6	16	28	8
4 subjects on diet 7:											
Mean	-------	2,608	54.7	65.3	-------	-------	7.35	5.59	.71	1.05	687
S.D	-------	28	3.3	12.5	-------	-------	.15	.35	.11	.33	103
C.V. (%)	-------	1	6	19	-------	-------	2	6	15	31	15
10 subjects in 1957:											
Mean	-------	2,490	48.0	69.7	-------	-------	6.64	4.81	0.78	1.05	609
S.D	-------	99	6.7	12.7	-------	-------	.60	.73	.13	.37	111
C.V. (%)	-------	4	14	18	-------	-------	9	15	17	35	18
1958											
EIGHT 6-DAY PERIODS											
VIRGINIA:											
Diet 8:											
Subject 24:											
Period 1	21.9	2,054	24.0	90.1	77.5	4.0	3.52	1.85	0.93	0.74	373
2	22.2	2,191	25.8	77.5	80.4	3.1	3.54	1.87	.77	.90	409
3	22.1	2,242	25.8	77.8	80.4	3.3	3.46	1.87	.80	.79	398
4	22.5	2,191	26.5	83.6	77.6	3.3	3.58	1.97	.79	.82	413
5	22.8	2,157	29.0	78.8	76.2	2.7	3.52	2.07	.73	.72	447
Mean	-------	2,167	26.2	81.6	78.4	3.3	3.52	1.93	.80	.79	408
S.D	-------	70	1.8	5.4	1.9	.5	.04	.09	.08	.07	55
C.V. (%)	-------	3	7	7	2	15	1	5	10	9	14

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1958											
EIGHT 6-DAY PERIODS											
VIRGINIA—Continued											
Diet S′:											
Subject 24:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 6	23.0	2,199	29.2	88.9	83.4	3.3	2.89	2.07	0.80	0.02	434
7	23.2	2,164	25.9	81.5	75.8	4.0	2.86	1.69	.74	.43	420
8	23.4	2,218	25.1	84.5	79.1	3.5	2.92	1.67	.78	.47	427
Mean		2,194	26.7	85.0	79.4	3.6	2.89	1.81	.77	.31	427
S.D		27	2.2	3.7	3.8	.4	.03	.23	.03	.25	19
C.V. (%)		1	8	4	5	11	1	13	4	81	4
Diet S:											
Subject 25:											
Period 1	34.1	2,054	44.8	63.3	77.5	2.4	3.52	2.56	.76	.20	475
2	34.0	2,191	27.5	70.1	80.4	2.8	3.54	2.40	.76	.38	498
3	33.9	2,242	28.8	55.0	80.4	2.2	3.46	2.12	.70	.64	492
4	33.9	2,191	28.5	68.0	77.6	2.8	3.58	2.25	.74	.59	506
5	33.9	2,157	29.2	74.2	76.2	2.6	3.52	2.24	.74	.54	516
Mean		2,167	31.8	66.1	78.4	2.6	3.52	2.31	.74	.47	497
S.D		70	7.3	7.4	1.9	.3	.04	.17	.02	.18	41
C.V. (%)		3	23	11	2	12	1	7	3	38	8
Diet S′:											
Subject 25:											
Period 6	33.8	2,199	27.6	68.1	83.4	2.5	2.89	1.96	.67	.26	516
7	33.7	2,347	27.2	79.0	83.4	3.4	2.87	1.77	.75	.35	499
8	34.1	2,400	26.4	72.2	86.7	2.7	2.93	1.73	.72	.48	498
Mean		2,315	27.1	73.1	84.5	2.9	2.90	1.82	.71	.36	505
S.D		104	.6	5.5	1.9	.5	.03	.12	.04	.11	25
C.V. (%)		4	2	8	2	17	1	7	6	31	5
Diet S:											
Subject 26:											
Period 1	23.1	2,054	42.7	66.8	77.5	2.6	3.51	1.99	.68	.84	418
2	23.9	2,171	24.0	94.1	80.4	3.3	3.52	1.62	.80	1.10	402
3	23.7	2,242	23.6	87.8	80.4	2.8	3.38	1.45	.74	1.19	408
4	24.2	2,092	26.7	88.2	64.9	3.5	3.34	1.58	.71	1.05	404
5	24.4	2,091	24.9	97.1	76.2	3.0	3.39	1.62	.81	.96	427
Mean		2,130	28.4	86.8	75.9	3.0	3.43	1.65	.75	1.03	412
S.D		76	8.1	11.9	6.4	.4	.08	.20	.06	.13	36
C.V. (%)		4	29	14	8	13	2	12	8	13	9
Diet S′:											
Subject 26:											
Period 6	24.7	2,112	25.4	86.0	83.4	2.7	2.80	1.49	.71	.60	443
7	24.6	2,028	24.1	92.5	71.4	3.4	2.67	1.41	.73	.53	443
8	24.9	2,137	25.6	84.8	79.1	3.2	2.81	1.42	.69	.70	456
Mean		2,092	25.0	87.8	78.0	3.1	2.76	1.44	.71	.61	447
S.D		57	.8	4.1	6.1	.4	.08	.04	.02	.09	19
C.V. (%)		3	3	5	8	13	3	3	3	15	4

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1958											
EIGHT 6-DAY PERIODS											
VIRGINIA—Continued											
Diet 8:											
Subject 27:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	23. 8	2, 054	32. 0	67. 2	77. 5	2. 7	3. 52	2. 58	0. 66	0. 28	415
2	25. 5	2, 191	28. 5	61. 2	80. 4	2. 8	3. 54	2. 20	. 58	. 76	432
3	24. 9	2, 242	28. 2	79. 4	80. 4	3. 2	3. 46	1. 92	. 74	. 80	421
4	25. 2	2, 191	26. 6	77. 6	77. 6	3. 0	3. 58	2. 02	. 66	. 90	416
5	25. 4	2, 157	28. 5	70. 7	76. 2	2. 6	3. 52	2. 14	. 59	. 79	434
Mean	-------	2, 167	28. 8	71. 2	78. 4	2. 9	3. 52	2. 17	. 65	. 71	424
S.D	-------	70	2. 0	7. 5	1. 9	. 2	. 04	. 25	. 06	. 24	29
C.V. (%)	-------	3	7	11	2	7	1	12	9	34	7
Diet 8′:											
Subject 27:											
Period 6	25. 5	2, 199	27. 7	75. 8	83. 4	3. 3	2. 89	1. 79	. 63	. 47	424
7	25. 9	2, 164	27. 6	76. 8	75. 8	3. 1	2. 86	1. 66	. 62	. 58	441
8	26. 0	2, 218	26. 1	90. 4	79. 1	3. 9	2. 92	1. 73	. 77	. 42	432
Mean	-------	2, 194	27. 1	81. 0	79. 4	3. 4	2. 89	1. 73	. 67	. 49	432
S.D	-------	27	. 9	8. 2	3. 8	. 4	. 03	. 07	. 08	. 08	29
C.V. (%)	-------	1	3	10	5	12	1	4	12	16	7
Diet 8:											
Subject 28:											
Period 1	24. 0	2, 054	26. 7	83. 7	77. 5	3. 5	3. 52	2. 05	. 78	. 69	399
2	25. 2	2, 191	26. 3	62. 2	80. 4	2. 5	3. 54	1. 92	. 60	1. 02	411
3	24. 7	2, 242	24. 8	76. 7	80. 4	3. 2	3. 46	1. 72	. 67	1. 07	386
4	25. 1	2, 130	25. 7	79. 6	77. 6	3. 5	3. 49	2. 00	. 69	. 80	397
5	25. 3	2, 157	27. 1	83. 5	76. 2	3. 0	3. 52	1. 97	. 70	. 85	417
Mean	-------	2, 155	26. 1	77. 1	78. 4	3. 1	3. 51	1. 93	. 69	. 89	402
S.D	-------	70	. 9	8. 8	1. 9	. 4	. 03	. 13	. 06	. 16	27
C.V. (%)	-------	3	3	11	2	13	1	7	9	18	7
Diet 8′:											
Subject 28:											
Period 6	25. 5	2, 199	26. 3	80. 9	83. 4	3. 8	2. 89	1. 69	. 69	. 51	418
7	25. 7	2, 132	24. 5	80. 2	75. 8	3. 8	2. 82	1. 60	. 67	. 55	406
8	26. 0	2, 134	26. 0	79. 5	79. 1	3. 6	2. 79	1. 55	. 69	. 55	410
Mean	-------	2, 155	25. 6	80. 2	79. 4	3. 7	2. 83	1. 61	. 68	. 54	411
S.D	-------	38	1. 0	. 7	3. 8	. 1	. 05	. 07	. 01	. 02	22
C.V. (%)	-------	2	4	1	5	3	2	4	1	4	5
Diet 8:											
Subject 29:											
Period 1	27. 7	2, 054	54. 0	69. 8	77. 5	3. 7	3. 52	2. 84	. 62	. 06	510
2	28. 1	2, 191	34. 2	57. 6	80. 4	3. 2	3. 54	3. 03	. 52	—. 01	475
3	27. 7	2, 242	25. 5	66. 6	80. 4	3. 8	3. 46	1. 74	. 60	1. 12	452
4	27. 8	2, 191	40. 0	78. 1	77 6	3. 5	3. 58	2. 53	. 66	. 39	514
5	28. 2	2, 157	33. 1	88. 7	76. 2	3. 7	3. 52	1. 93	. 66	. 93	468
Mean	-------	2, 167	37. 4	72. 2	78. 4	3. 6	3. 52	2. 41	. 61	. 50	484
S.D	-------	70	10. 6	11. 8	1. 9	. 2	. 04	. 56	. 06	. 51	56
C.V. (%)	-------	3	28	16	2	6	1	23	10	102	12

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy[1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1958											
EIGHT 6-DAY PERIODS											
VIRGINIA—Continued											
Diet 8′:											
Subject 29:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 6	28. 4	2, 199	29. 1	61. 5	83. 4	3. 0	2. 89	1. 69	. 50	. 70	463
7	28. 5	2, 164	29. 0	66. 5	75. 8	3. 7	2. 86	1. 77	. 60	. 49	477
8	28. 8	2, 218	27. 9	73. 3	79. 1	3. 8	2. 92	1. 63	. 68	. 61	453
Mean		2, 194	28. 7	67. 1	79. 4	3. 5	2. 89	1. 70	. 59	. 60	463
S.D		27	. 7	5. 9	3. 8	. 4	. 03	. 07	. 09	. 11	31
C.V. (%)		1	2	9	5	11	1	4	15	18	7
Diet 8:											
Subject 30:											
Period 1	26. 5	2, 054	47. 0	56. 2	77. 5	2. 0	3. 52	2. 64	. 69	. 19	468
2	26. 8	2, 191	32. 6	62. 0	80. 4	2. 5	3. 54	2. 50	. 67	. 37	483
3	26. 4	2, 242	31. 5	61. 6	80. 4	2. 4	3. 46	2. 20	. 70	. 56	462
4	26. 8	2, 191	33. 9	82. 8	77. 6	2. 6	3. 58	2. 38	. 75	. 45	474
5	27. 0	2, 157	32. 0	80. 3	76. 2	1. 7	3. 52	2. 57	. 71	. 24	497
Mean		2, 167	35. 4	68. 6	78. 4	2. 2	3. 52	2. 46	. 70	. 36	477
S.D		70	6. 5	12. 1	1. 9	. 4	. 04	. 17	. 03	. 15	74
C.V. (%)		3	18	18	2	18	1	7	4	42	16
Diet 8′:											
Subject 30:											
Period 6	26. 9	2, 199	27. 6	87. 1	83. 4	2. 7	2. 87	2. 04	. 72	. 11	472
7	27. 1	2, 347	27. 2	94. 1	83. 4	3. 0	2. 87	1. 75	. 85	. 27	486
8	27. 2	2, 400	26. 7	91. 9	86. 7	3. 4	2. 93	1. 59	. 78	. 56	482
Mean		2, 315	27. 2	19. 0	84. 5	3. 0	2. 89	1. 79	. 78	. 31	480
S.D		104	. 5	3. 6	1. 9	. 4	. 03	. 23	. 07	. 23	46
C.V. (%)		4	2	4	2	13	1	13	9	74	10
Diet 8:											
Subject 31:											
Period 1	26. 9	2, 054	41. 1	64. 1	77. 5	2. 7	3. 52	1. 77	. 66	1. 09	424
2	27. 3	2, 191	27. 9	54. 2	80. 4	2. 2	3. 54	1. 78	. 56	1. 20	448
3	27. 3	2, 242	25. 7	77. 6	80. 4	3. 2	3. 46	1. 72	. 73	1. 01	433
4	27. 9	2, 191	27. 6	87. 2	77. 6	3. 6	3. 58	1. 80	. 73	1. 05	455
5	28. 1	2, 157	25. 4	79. 0	76. 2	2. 5	3. 52	1. 79	. 65	1. 08	472
Mean		2, 167	29. 5	72. 4	78. 4	2. 8	3. 52	1. 77	. 67	1. 09	446
S.D		70	6. 6	13. 1	1. 9	. 6	. 04	. 03	. 07	. 07	33
C.V. (%)		3	22	18	2	21	1	2	10	6	7
Diet 8′:											
Subject 31:											
Period 6	28. 4	2, 199	25. 1	90. 0	83. 4	3. 6	2. 86	1. 69	. 78	. 39	483
7	28. 6	2, 164	25. 2	92. 9	75. 8	3. 9	2. 86	1. 51	. 75	. 60	468
8	28. 9	2, 218	24. 2	79. 1	79. 1	2. 9	2. 92	1. 48	. 68	. 76	464
Mean		2, 194	24. 8	87. 3	79. 4	3. 5	2. 88	1. 56	. 74	. 58	472
S.D		27	. 6	7. 3	3. 8	. 5	. 03	. 11	. 05	. 19	18
C.V. (%)		1	2	8	5	14	1	7	7	33	4

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy[1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1958											
EIGHT 6-DAY PERIODS											
VIRGINIA—Continued											
Diet 8:											
Subject 32:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 1	28. 5	2, 054	31. 6	52. 4	77. 5	2. 4	3. 52	2. 30	. 60	. 62	454
2	28. 9	2, 191	30. 4	77. 4	80. 4	4. 2	3. 54	2. 22	. 72	. 60	467
3	29. 0	2, 242	30. 7	66. 2	80. 4	3. 2	3. 46	2. 06	. 66	. 74	471
4	29. 4	2, 116	33. 5	90. 6	69. 6	5. 1	3. 40	2. 41	. 78	. 21	483
5	29. 5	2, 157	30. 6	92. 0	76. 2	3. 4	3. 52	2. 09	. 72	. 71	471
Mean	-------	2, 152	31. 4	75. 7	76. 8	3. 7	3. 49	2. 22	. 70	. 58	469
S.D	-------	72	1. 3	16. 8	4. 4	1. 0	. 06	. 15	. 07	. 21	29
C.V. (%)	-------	3	4	22	6	27	2	7	10	36	6
Diet 8′:											
Subject 32:											
Period 6	29. 6	2, 199	29. 0	96. 5	83. 4	4. 8	2. 89	1. 79	. 69	. 41	494
7	29. 7	2, 164	32. 3	94. 7	75. 8	4. 4	2. 86	1. 77	. 68	. 41	475
8	29. 9	2, 218	26. 7	95. 8	79. 1	3. 8	2. 92	1. 64	. 76	. 52	470
Mean	-------	2, 194	29. 3	95. 7	79. 4	4. 3	2. 89	1. 73	. 71	. 45	480
S.D	-------	27	2. 8	. 9	3. 8	. 5	. 03	. 08	. 04	. 06	29
C.V. (%)	-------	1	10	1	5	12	1	5	6	13	6
Diet 8:											
Subject 33:											
Period 1	29. 0	2, 054	49. 5	69. 0	77. 5	3. 0	3. 52	2. 53	. 79	. 20	470
2	29. 5	2, 191	33. 3	59. 7	80. 4	2. 6	3. 54	2. 25	. 63	. 66	476
3	29. 5	2, 242	30. 7	73. 7	80. 4	3. 1	3. 46	1. 91	. 72	. 83	472
4	29. 6	2, 191	31. 8	73. 2	77. 6	2. 9	3. 58	2. 06	. 71	. 81	476
5	29. 5	2, 157	34. 0	56. 2	76. 2	2. 1	3. 52	2. 25	. 56	. 71	489
Mean	-------	2, 167	35. 9	66. 4	78. 4	2. 7	3. 52	2. 20	. 68	. 64	477
S.D	-------	70	7. 7	8. 0	1. 9	. 4	. 04	. 23	. 09	. 26	88
C.V. (%)	-------	3	21	12	2	15	1	10	13	41	18
Diet 8′:											
Subject 33:											
Period 6	29. 7	2, 199	31. 9	73. 3	83. 4	3. 3	2. 89	2. 03	. 69	. 17	496
7	29. 9	2, 164	33. 4	76. 8	75. 8	3. 3	2. 86	1. 85	. 73	. 28	494
8	30. 0	2, 218	32. 2	67. 6	79. 1	3. 2	2. 92	1. 76	. 64	. 52	492
Mean	-------	2, 194	32. 5	72. 6	79. 4	3. 3	2. 89	1. 88	. 69	. 32	494
S.D	-------	27	. 8	4. 6	3. 8	. 1	. 03	. 14	. 05	. 18	19
C.V. (%)	-------	1	2	6	5	3	1	7	7	56	4
Diet 8:											
Subject 34:											
Period 1	30. 5	2, 054	34. 2	63. 8	77. 5	3. 0	3. 52	2. 45	. 63	. 44	452
2	30. 8	2, 191	32. 3	84. 4	80. 4	3. 7	3. 54	2. 16	. 86	. 52	486
3	30. 6	2, 242	34. 8	65. 7	80. 4	2. 8	3. 46	1. 93	. 72	. 81	465
4	31. 2	2, 191	34. 2	79. 3	77. 6	2. 8	3. 58	2. 49	. 78	. 31	464
5	31. 4	2, 157	31. 7	99. 2	76. 2	3. 4	3. 52	2. 37	. 91	. 24	603
Mean	-------	2, 167	33. 4	78. 5	78. 4	3. 1	3. 52	2. 28	. 78	. 46	495
S.D	-------	70	1. 4	14. 5	1. 9	. 4	. 04	. 23	. 11	. 22	130
C.V. (%)	-------	3	4	18	2	13	1	10	14	48	26

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy[1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1958											
EIGHT 6-DAY PERIODS											
VIRGINIA—Continued											
Diet 8′:											
Subject 34:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 6	31. 4	2, 199	29. 8	67. 4	83. 4	2. 9	2. 89	1. 81	0. 65	0. 43	491
7	31. 9	2, 164	24. 6	89. 0	75. 8	4. 2	2. 86	1. 78	. 74	. 34	494
8	31. 9	2, 218	29. 6	77. 2	79. 1	3. 5	2. 92	1. 72	. 72	. 48	489
Mean	-------	2, 194	28. 0	77. 9	79. 4	3. 5	2. 89	1. 77	. 70	. 42	491
S.D	-------	27	2. 9	10. 8	3. 8	. 7	. 03	. 05	. 05	. 07	15
C.V. (%)	-------	1	10	14	5	20	1	3	7	17	3
Diet 8:											
Subject 35:											
Period 1	34. 1	2, 054	57. 7	96. 3	77. 5	5. 5	3. 52	3. 00	. 72	—. 20	648
2	34. 5	2, 380	35. 3	69. 5	85. 5	3. 6	3. 54	2. 72	. 60	. 22	666
3	34. 0	2, 283	33. 3	73. 5	80. 8	3. 1	3. 99	2. 51	. 72	. 76	636
4	34. 0	2, 232	34. 2	72. 6	77. 9	3. 1	4. 11	2. 69	. 66	. 76	627
5	33. 7	2, 481	33. 3	92. 1	84. 2	3. 7	4. 06	2. 63	. 79	. 64	664
Mean	-------	2, 286	38. 8	80. 8	81. 2	3. 8	3. 84	2. 71	. 70	. 44	648
S.D	-------	161	10. 6	12. 4	3. 6	1. 0	. 29	. 18	. 07	. 42	37
C.V. (%)	-------	7	27	15	4	26	8	7	10	95	6
Diet 8′:											
Subject 35:											
Period 6	34. 1	2, 382	32. 4	72. 8	91. 0	3. 2	2. 90	2. 28	. 62	. 00	663
7	34. 0	2, 532	37. 2	89. 3	88. 1	4. 0	3. 51	2. 31	. 76	. 44	656
8	34. 2	2, 627	31. 8	78. 8	91. 8	3. 5	4. 10	2. 41	. 69	1. 00	644
Mean	-------	2, 514	33. 8	80. 3	90. 3	3. 6	3. 50	2. 33	. 69	. 48	654
S.D	-------	124	3. 0	8. 4	1. 9	. 4	. 60	. 07	. 07	. 50	19
C.V. (%)	-------	5	9	10	2	11	17	3	10	104	3
Diet 8:											
Subject 12:											
Period 1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
2	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
3	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
4	27. 7	2, 191	30. 4	67. 2	77. 6	3. 8	3. 58	2. 37	. 68	. 53	471
5	27. 7	2, 157	29. 2	78. 4	76. 2	3. 1	3. 52	1. 94	. 66	. 92	488
Mean	-------	2, 174	29. 8	72. 8	-------	-------	3. 55	2. 16	. 67	. 72	-------
S.D	-------	24	. 8	7. 9	-------	-------	. 04	. 30	. 01	. 28	-------
C.V. (%)	-------	1	3	11	-------	-------	1	14	1	39	-------

See footnotes at end of table, p. 53.

TABLE 9.—ENERGY, FAT, NITROGEN: *Mean daily intake and output of energy, fat, and nitrogen and urinary creatinine for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Subject's weight	Energy [1]			Fat		Nitrogen				Urinary creatinine
		Intake	Urine	Feces	Intake	Feces	Intake	Urine	Feces	Balance	
1958											
EIGHT 6-DAY PERIODS											
VIRGINIA—Continued											
Diet 8′:											
Subject 12:	*Kg.*	*Cal.*	*Cal.*	*Cal.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Gm.*	*Mg.*
Period 6	27. 9	2, 199	28. 4	79. 9	83. 4	3. 1	2. 89	1. 84	0. 67	0. 38	485
7	27. 8	2, 164	29. 7	64. 9	75. 8	2. 8	2. 86	1. 81	. 55	. 50	485
8	28. 1	2, 218	28. 8	91. 4	79. 1	4. 4	2. 92	1. 68	. 80	. 44	484
Mean	-------	2, 194	29. 0	78. 7	-------	-------	2. 89	1. 78	. 67	. 44	-------
S.D	-------	27	. 7	13. 3	-------	-------	. 03	. 09	. 13	. 06	-------
C.V. (%)	-------	1	2	17	-------	-------	1	5	19	14	-------
Diet 8 (13 subjects):											
Mean	-------	2, 172	31. 8	74. 7	[2] 78. 3	[2] 3. 1	3. 54	2. 17	0. 71	0. 66	[2] 470
S.D	-------	81	7. 0	11. 8	[2] 2. 9	[2] . 7	. 13	. 36	. 08	. 32	[2] 87
C.V. (%)	-------	4	22	16	[2] 4	[2] 23	4	17	11	48	[2] 18
Diet 8′ (13 subjects):											
Mean	-------	2, 226	28. 1	81. 4	[2] 81. 1	[2] 3. 5	2. 93	1. 76	. 70	. 46	[2] 480
S.D	-------	113	2. 9	9. 6	[2] 4. 6	[2] . 5	. 23	. 23	. 07	. 20	[2] 65
C.V. (%)	-------	5	10	12	[2] 6	[2] 14	8	13	10	43	[2] 13

[1] Gross energy determined in an Emerson bomb calorimeter.

[2] Values for subject 12 not included, as data for that subject not available for 1958.

TABLE 10.—AMINO ACIDS: *Mean daily*

[1954, 1956—alternate periods;

Year, location, diet, subject, and period	Tryptophan		Threonine		Isoleucine		Leucine		Lysine	
	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine
1954										
SIXTEEN 4-DAY PERIODS										
TENNESSEE:										
Diet 1:										
Subject 1:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	668	9.50	2,470	-----	3,290	-----	4,960	-----	4,050	-----
4	720	10.00	2,710	-----	3,420	-----	5,180	-----	4,270	-----
6	777	7.80	2,630	-----	3,580	-----	5,460	-----	4,170	-----
8	768	11.40	2,720	-----	3,590	-----	5,380	-----	4,200	-----
10	746	9.40	2,390	-----	3,250	-----	4,860	-----	4,070	-----
12	704	11.75	2,590	-----	3,400	-----	5,420	-----	4,930	-----
14	732	11.50	2,550	-----	3,520	-----	5,200	-----	4,000	-----
16	754	10.60	2,680	-----	3,660	-----	5,460	-----	4,170	-----
Mean	734	10.24	2,592	-----	3,464	-----	5,240	-----	4,232	-----
S.D.	36	1.34	118	-----	148	-----	232	-----	295	-----
C.V. (%)	5	13	5	-----	4	-----	4	-----	7	-----
Diet 1:										
Subject 2:										
Period 2	668	7.50	2,470	-----	3,290	-----	4,960	-----	4,050	-----
4	720	6.45	2,710	-----	3,420	-----	5,180	-----	4,270	-----
6	777	10.50	2,630	-----	3,580	-----	5,460	-----	4,170	-----
8	768	9.75	2,720	-----	3,590	-----	5,380	-----	4,200	-----
10	746	7.95	2,390	-----	3,250	-----	4,860	-----	4,070	-----
12	652	5.10	2,320	-----	3,160	-----	4,720	-----	3,530	-----
14	256	3.38	730	-----	960	-----	1,480	-----	1,480	-----
16	678	7.75	2,480	-----	3,080	-----	5,060	-----	4,130	-----
Mean	658	7.30	2,306	-----	3,041	-----	4,638	-----	3,738	-----
S.D.	169	2.32	653	-----	861	-----	1,300	-----	940	-----
C.V. (%)	26	32	28	-----	28	-----	28	-----	25	-----
Diet 1:										
Subject 3:										
Period 2	-----	-----	2,470	-----	3,290	-----	4,960	-----	4,050	-----
4	592	8.10	2,140	-----	2,500	-----	3,980	-----	3,690	-----
6	777	10.50	2,630	-----	3,580	-----	5,460	-----	4,170	-----
8	614	8.15	2,180	-----	2,870	-----	4,300	-----	3,360	-----
10	671	7.07	2,150	-----	2,920	-----	4,370	-----	3,660	-----
12	704	8.80	2,590	-----	3,400	-----	5,420	-----	4,930	-----
14	732	10.50	2,550	-----	3,520	-----	5,200	-----	4,000	-----
16	414	8.10	1,310	-----	1,620	-----	2,640	-----	2,360	-----
Mean	643	8.75	2,252	-----	2,962	-----	4,541	-----	3,778	-----
S.D.	120	1.30	432	-----	656	-----	944	-----	738	-----
C.V. (%)	19	15	19	-----	22	-----	21	-----	20	-----
Diet 1:										
Subject 4:										
Period 2	668	11.50	2,470	-----	3,290	-----	4,960	-----	4,050	-----
4	720	9.90	2,710	-----	3,420	-----	5,180	-----	4,270	-----
6	777	11.10	2,630	-----	3,580	-----	5,460	-----	4,170	-----
8	768	11.00	2,720	-----	3,590	-----	5,380	-----	4,200	-----
10	746	10.70	2,390	-----	3,250	-----	4,860	-----	4,070	-----
12	704	8.80	2,590	-----	3,400	-----	5,420	-----	4,930	-----
14	732	10.50	2,550	-----	3,520	-----	5,200	-----	4,000	-----
16	754	10.10	2,680	-----	3,660	-----	5,460	-----	4,170	-----
Mean	734	10.45	2,592	-----	3,464	-----	5,240	-----	4,232	-----
S.D.	36	.85	118	-----	148	-----	232	-----	295	-----
C.V. (%)	5	8	5	-----	4	-----	4	-----	7	-----
Diet 1:										
Subject 5:										
Period 2	668	7.75	2,470	-----	3,290	-----	4,960	-----	4,050	-----
4	720	7.05	2,710	-----	3,420	-----	5,180	-----	4,270	-----
6	777	5.85	2,630	-----	3,580	-----	5,460	-----	4,170	-----
8	768	9.90	2,720	-----	3,590	-----	5,380	-----	4,200	-----
10	746	5.50	2,390	-----	3,250	-----	4,860	-----	4,070	-----
12	704	10.40	2,590	-----	3,400	-----	5,420	-----	4,930	-----
14	581	10.10	1,960	-----	2,420	-----	3,840	-----	3,860	-----
16	721	6.70	2,350	-----	2,860	-----	4,940	-----	4,560	-----
Mean	711	7.91	2,478	-----	3,226	-----	5,005	-----	4,264	-----
S.D.	63	1.97	251	-----	399	-----	526	-----	336	-----
C.V. (%)	9	25	10	-----	12	-----	11	-----	8	-----

intake and urinary excretion

1957, 1958—all periods]

Sulfur containing—				Phenylalanine		Tyrosine		Valine		Arginine		Histidine		Glutamic acid		Period
Methionine		Cystine		Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	
Intake	Urine	Intake	Urine													
Mg.	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	
1,280	--------	940	--------	2,640	--------	--------	--------	3,410	--------	2,900	--------	1,690	--------	--------	--------	2
1,320	--------	1,000	--------	2,700	--------	--------	--------	3,780	--------	2,760	--------	1,730	--------	--------	--------	4
1,310	--------	980	--------	2,780	--------	--------	--------	3,740	--------	3,160	--------	1,880	--------	--------	--------	6
1,310	--------	1,060	--------	3,030	--------	--------	--------	3,650	--------	2,980	--------	1,840	--------	--------	--------	8
1,160	--------	1,040	--------	2,640	--------	--------	--------	3,390	--------	2,960	--------	1,580	--------	--------	--------	10
1,490	--------	860	--------	2,920	--------	--------	--------	3,880	--------	2,980	--------	2,040	--------	--------	--------	12
1,330	--------	840	--------	2,560	--------	--------	--------	3,720	--------	3,040	--------	1,690	--------	--------	--------	14
1,370	--------	1,080	--------	2,600	--------	--------	--------	3,890	--------	3,000	--------	1,660	--------	--------	--------	16
1,321	--------	975	--------	2,734	--------	--------	--------	3,682	--------	2,972	--------	1,764	--------	--------	--------	--------
92	--------	89	--------	165	--------	--------	--------	192	--------	114	--------	147	--------	--------	--------	--------
7	--------	9	--------	6	--------	--------	--------	5	--------	4	--------	8	--------	--------	--------	--------
1,280	--------	940	--------	2,640	--------	--------	--------	3,410	--------	2,900	--------	1,690	--------	--------	--------	2
1,320	--------	1,000	--------	2,700	--------	--------	--------	3,780	--------	2,760	--------	1,730	--------	--------	--------	4
1,310	--------	980	--------	2,780	--------	--------	--------	3,740	--------	3,160	--------	1,880	--------	--------	--------	6
1,310	--------	1,060	--------	3,030	--------	--------	--------	3,650	--------	2,980	--------	1,840	--------	--------	--------	8
1,160	--------	1,040	--------	2,640	--------	--------	--------	3,390	--------	2,960	--------	1,580	--------	--------	--------	10
1,260	--------	940	--------	2,420	--------	--------	--------	3,300	--------	2,940	--------	1,430	--------	--------	--------	12
400	--------	--------	--------	850	--------	--------	--------	1,220	--------	1,030	--------	620	--------	--------	--------	14
1,300	--------	860	--------	2,740	--------	--------	--------	3,440	--------	2,640	--------	1,690	--------	--------	--------	16
1,168	--------	974	--------	2,475	--------	--------	--------	3,241	--------	2,671	--------	1,558	--------	--------	--------	--------
314	--------	68	--------	678	--------	--------	--------	835	--------	681	--------	404	--------	--------	--------	--------
27	--------	7	--------	27	--------	--------	--------	26	--------	25	--------	26	--------	--------	--------	--------
1,280	--------	940	--------	2,640	--------	--------	--------	3,410	--------	2,900	--------	1,690	--------	--------	--------	2
1,060	--------	780	--------	2,320	--------	--------	--------	3,000	--------	2,140	--------	1,430	--------	--------	--------	4
1,310	--------	980	--------	2,780	--------	--------	--------	3,740	--------	3,160	--------	1,880	--------	--------	--------	6
1,050	--------	848	--------	2,420	--------	--------	--------	2,920	--------	2,380	--------	1,470	--------	--------	--------	8
1,040	--------	936	--------	2,380	--------	--------	--------	3,050	--------	2,660	--------	1,420	--------	--------	--------	10
1,490	--------	860	--------	2,920	--------	--------	--------	3,880	--------	2,980	--------	2,040	--------	--------	--------	12
1,330	--------	840	--------	2,560	--------	--------	--------	3,720	--------	3,040	--------	1,690	--------	--------	--------	14
700	--------	480	--------	1,570	--------	--------	--------	1,960	--------	1,280	--------	850	--------	--------	--------	16
1,158	--------	833	--------	2,449	--------	--------	--------	3,210	--------	2,568	--------	1,559	--------	--------	--------	--------
246	--------	157	--------	410	--------	--------	--------	626	--------	626	--------	362	--------	--------	--------	--------
21	--------	19	--------	17	--------	--------	--------	20	--------	24	--------	23	--------	--------	--------	--------
1,280	--------	940	--------	2,640	--------	--------	--------	3,410	--------	2,900	--------	1,690	--------	--------	--------	2
1,320	--------	1,000	--------	2,700	--------	--------	--------	3,780	--------	2,760	--------	1,730	--------	--------	--------	4
1,310	--------	980	--------	2,780	--------	--------	--------	3,740	--------	3,160	--------	1,880	--------	--------	--------	6
1,310	--------	1,060	--------	3,030	--------	--------	--------	3,650	--------	2,980	--------	1,840	--------	--------	--------	8
1,160	--------	1,040	--------	2,640	--------	--------	--------	3,390	--------	2,960	--------	1,580	--------	--------	--------	10
1,490	--------	860	--------	2,920	--------	--------	--------	3,880	--------	2,980	--------	2,040	--------	--------	--------	12
1,330	--------	840	--------	2,560	--------	--------	--------	3,720	--------	3,040	--------	1,690	--------	--------	--------	14
1,370	--------	1,080	--------	2,600	--------	--------	--------	3,890	--------	3,000	--------	1,660	--------	--------	--------	16
1,321	--------	975	--------	2,734	--------	--------	--------	3,682	--------	2,972	--------	1,764	--------	--------	--------	--------
92	--------	89	--------	165	--------	--------	--------	192	--------	114	--------	147	--------	--------	--------	--------
7	--------	9	--------	6	--------	--------	--------	5	--------	4	--------	8	--------	--------	--------	--------
1,280	--------	940	--------	2,640	--------	--------	--------	3,410	--------	2,900	--------	1,690	--------	--------	--------	2
1,320	--------	1,000	--------	2,700	--------	--------	--------	3,780	--------	2,760	--------	1,730	--------	--------	--------	4
1,310	--------	980	--------	2,780	--------	--------	--------	3,740	--------	3,160	--------	1,880	--------	--------	--------	6
1,310	--------	1,060	--------	3,030	--------	--------	--------	3,650	--------	2,980	--------	1,840	--------	--------	--------	8
1,160	--------	1,040	--------	2,640	--------	--------	--------	3,390	--------	2,960	--------	1,580	--------	--------	--------	10
1,490	--------	860	--------	2,920	--------	--------	--------	3,880	--------	2,980	--------	2,040	--------	--------	--------	12
1,020	--------	700	--------	2,240	--------	--------	--------	2,780	--------	2,820	--------	1,430	--------	--------	--------	14
1,180	--------	930	--------	2,760	--------	--------	--------	3,620	--------	3,280	--------	1,770	--------	--------	--------	16
1,259	--------	939	--------	2,714	--------	--------	--------	3,531	--------	2,980	--------	1,745	--------	--------	--------	--------
139	--------	116	--------	234	--------	--------	--------	348	--------	170	--------	187	--------	--------	--------	--------
11	--------	12	--------	9	--------	--------	--------	10	--------	6	--------	11	--------	--------	--------	--------

TABLE 10.—AMINO ACIDS: *Mean daily*

Year, location, diet, subject, and period	Tryptophan		Threonine		Isoleucine		Leucine		Lysine	
	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine
1954										
SIXTEEN 4-DAY PERIODS										
TENNESSEE—Continued										
Diet 1:										
Subject 6:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	668	8.55	2,470	--------	3,290	--------	4,960	--------	4,050	--------
4	720	8.55	2,710	--------	3,420	--------	5,180	--------	4,270	--------
6	777	9.15	2,630	--------	3,580	--------	5,460	--------	4,170	--------
8	768	7.85	2,720	--------	3,590	--------	5,380	--------	4,200	--------
10	746	10.10	2,390	--------	3,250	--------	4,860	--------	4,070	--------
12	704	10.60	2,590	--------	3,400	--------	5,420	--------	4,930	--------
14	732	5.80	2,550	--------	3,520	--------	5,200	--------	4,000	--------
16	754	9.60	2,680	--------	3,660	--------	5,460	--------	4,170	--------
Mean	734	8.78	2,592	--------	3,464	--------	5,240	--------	4,232	--------
S.D	36	1.50	118	--------	148	--------	232	--------	295	--------
C.V. (%)	5	17	5	--------	4	--------	4	--------	7	--------
6 subjects (Tenn.):										
Mean	703	8.91	2,469	--------	3,270	--------	4,984	--------	4,079	--------
S.D	94	1.93	357	--------	502	--------	733	--------	567	--------
C.V. (%)	13	22	14	--------	15	--------	15	--------	14	--------
LOUISIANA:										
Diet 1:										
Subject 7:										
Period 2	--------	--------	2,820	--------	3,610	--------	5,700	--------	4,510	--------
4	836	6.30	2,810	--------	3,520	--------	5,380	--------	4,290	--------
6	780	6.20	2,850	--------	3,520	--------	5,160	--------	4,250	--------
8	829	6.95	2,900	--------	4,090	--------	5,680	--------	4,750	--------
10	856	5.20	2,900	--------	3,750	--------	5,660	--------	4,910	--------
12	850	7.05	3,200	--------	3,640	--------	5,740	--------	5,030	--------
14	827	6.80	2,940	--------	3,590	--------	5,620	--------	4,860	--------
16	848	5.40	2,900	--------	3,700	--------	5,840	--------	4,640	--------
Mean	832	6.27	2,915	--------	3,678	--------	5,598	--------	4,655	--------
S.D	26	.74	124	--------	185	--------	220	--------	287	--------
C.V. (%)	3	12	4	--------	5	--------	4	--------	6	--------
Diet 1:										
Subject 8:										
Period 2	885	13.20	2,820	--------	3,610	--------	5,700	--------	4,510	--------
4	836	12.90	2,810	--------	3,520	--------	5,380	--------	4,290	--------
6	780	12.20	2,850	--------	3,520	--------	5,160	--------	4,250	--------
8	829	12.60	2,900	--------	4,090	--------	5,680	--------	4,750	--------
10	856	11.80	2,900	--------	3,750	--------	5,660	--------	4,910	--------
12	850	13.30	3,200	--------	3,640	--------	5,740	--------	5,030	--------
14	827	13.70	2,940	--------	3,590	--------	5,620	--------	4,860	--------
16	848	12.50	2,900	--------	3,700	--------	5,840	--------	4,640	--------
Mean	839	12.78	2,915	--------	3,678	--------	5,598	--------	4,655	--------
S.D	30	.62	124	--------	185	--------	220	--------	287	--------
C.V. (%)	4	5	4	--------	5	--------	4	--------	6	--------
Diet 1:										
Subject 9:										
Period 2	885	9.80	2,820	--------	3,610	--------	5,700	--------	4,510	--------
4	836	10.10	2,810	--------	3,520	--------	5,380	--------	4,290	--------
6	780	9.80	2,850	--------	3,520	--------	5,160	--------	4,250	--------
8	829	8.10	2,900	--------	4,090	--------	5,680	--------	4,750	--------
10	856	9.80	2,900	--------	3,750	--------	5,660	--------	4,910	--------
12	850	9.90	3,200	--------	3,640	--------	5,740	--------	5,030	--------
14	827	10.00	2,940	--------	3,590	--------	5,620	--------	4,860	--------
16	848	10.00	2,900	--------	3,700	--------	5,840	--------	4,640	--------
Mean	839	9.69	2,915	--------	3,678	--------	5,598	--------	4,655	--------
S.D	30	.65	124	--------	185	--------	220	--------	287	--------
C.V. (%)	4	7	4	--------	5	--------	4	--------	6	--------
Diet 1:										
Subject 10:										
Period 2	885	6.90	2,820	--------	3,610	--------	5,700	--------	4,510	--------
4	836	7.10	2,810	--------	3,520	--------	5,380	--------	4,290	--------
6	780	6.20	2,850	--------	3,520	--------	5,160	--------	4,250	--------
8	829	7.70	2,900	--------	4,090	--------	5,680	--------	4,750	--------
10	--------	--------	2,900	--------	3,750	--------	5,660	--------	4,910	--------
12	850	7.35	3,200	--------	3,640	--------	5,740	--------	5,030	--------
14	827	7.80	2,940	--------	3,590	--------	5,620	--------	4,860	--------
16	848	7.05	2,900	--------	3,700	--------	5,840	--------	4,640	--------
Mean	836	7.16	2,915	--------	3,678	--------	5,598	--------	4,655	--------
S.D	32	.54	124	--------	185	--------	220	--------	287	--------
C.V. (%)	4	8	4	--------	5	--------	4	--------	6	--------

intake and urinary excretion—Continued

Sulfur containing—				Phenylalanine		Tyrosine		Valine		Arginine		Histidine		Glutamic acid		Period
Methionine		Cystine		Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	
Intake	Urine	Intake	Urine													
Mg.	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	
1,280	--------	940	--------	2,640	--------	--------	--------	3,410	--------	2,900	--------	1,690	--------	--------	--------	2
1,320	--------	1,000	--------	2,700	--------	--------	--------	3,780	--------	2,760	--------	1,730	--------	--------	--------	4
1,310	--------	980	--------	2,780	--------	--------	--------	3,740	--------	3,160	--------	1,880	--------	--------	--------	6
1,310	--------	1,060	--------	3,030	--------	--------	--------	3,650	--------	2,980	--------	1,840	--------	--------	--------	8
1,160	--------	1,040	--------	2,640	--------	--------	--------	3,390	--------	2,960	--------	1,580	--------	--------	--------	10
1,490	--------	860	--------	2,920	--------	--------	--------	3,880	--------	2,980	--------	2,040	--------	--------	--------	12
1,330	--------	840	--------	2,560	--------	--------	--------	3,720	--------	3,040	--------	1,690	--------	--------	--------	14
1,370	--------	1,080	--------	2,600	--------	--------	--------	3,890	--------	3,000	--------	1,660	--------	--------	--------	16
1,321	--------	975	--------	2,734	--------	--------	--------	3,682	--------	2,972	--------	1,764	--------	--------	--------	--------
92	--------	89	--------	135	--------	--------	--------	192	--------	114	--------	147	--------	--------	--------	--------
7	--------	9	--------	6	--------	--------	--------	5	--------	4	--------	8	--------	--------	--------	--------
1,258	--------	945	--------	2,640	--------	--------	--------	3,505	--------	2,856	--------	1,692	--------	--------	--------	--------
188	--------	113	--------	361	--------	--------	--------	490	--------	409	--------	261	--------	--------	--------	--------
15	--------	12	--------	14	--------	--------	--------	14	--------	14	--------	15	--------	--------	--------	--------
1,340	--------	1,020	--------	3,000	--------	--------	--------	3,860	--------	3,220	--------	1,870	--------	--------	--------	2
1,440	--------	1,080	--------	2,840	--------	--------	--------	3,940	--------	2,920	--------	1,740	--------	--------	--------	4
1,470	--------	1,000	--------	2,580	--------	--------	--------	3,910	--------	2,760	--------	1,780	--------	--------	--------	6
1,440	--------	1,140	--------	2,960	--------	--------	--------	4,280	--------	3,320	--------	1,810	--------	--------	--------	8
1,420	--------	1,140	--------	2,880	--------	--------	--------	4,300	--------	3,120	--------	1,840	--------	--------	--------	10
1,570	--------	1,180	--------	3,060	--------	--------	--------	3,930	--------	3,140	--------	1,970	--------	--------	--------	12
1,460	--------	1,000	--------	3,080	--------	--------	--------	4,290	--------	3,100	--------	2,050	--------	--------	--------	14
1,470	--------	1,040	--------	2,860	--------	--------	--------	4,370	--------	3,240	--------	2,140	--------	--------	--------	16
1,451	--------	1,075	--------	2,908	--------	--------	--------	4,110	--------	3,102	--------	1,900	--------	--------	--------	--------
64	--------	71	--------	160	--------	--------	--------	217	--------	182	--------	140	--------	--------	--------	--------
4	--------	7	--------	6	--------	--------	--------	5	--------	6	--------	7	--------	--------	--------	--------
1,340	--------	1,020	--------	3,000	--------	--------	--------	3,860	--------	3,220	--------	1,870	--------	--------	--------	2
1,440	--------	1,080	--------	2,840	--------	--------	--------	3,940	--------	2,920	--------	1,740	--------	--------	--------	4
1,470	--------	1,000	--------	2,580	--------	--------	--------	3,910	--------	2,760	--------	1,780	--------	--------	--------	6
1,440	--------	1,140	--------	2,960	--------	--------	--------	4,280	--------	3,320	--------	1,810	--------	--------	--------	8
1,420	--------	1,140	--------	2,880	--------	--------	--------	4,300	--------	3,120	--------	1,840	--------	--------	--------	10
1,570	--------	1,180	--------	3,060	--------	--------	--------	3,930	--------	3,140	--------	1,970	--------	--------	--------	12
1,460	--------	1,000	--------	3,080	--------	--------	--------	4,290	--------	3,100	--------	2,050	--------	--------	--------	14
1,470	--------	1,040	--------	2,860	--------	--------	--------	4,370	--------	3,240	--------	2,140	--------	--------	--------	16
1,451	--------	1,075	--------	2,908	--------	--------	--------	4,110	--------	3,102	--------	1,900	--------	--------	--------	--------
64	--------	71	--------	160	--------	--------	--------	217	--------	182	--------	140	--------	--------	--------	--------
4	--------	7	--------	6	--------	--------	--------	5	--------	6	--------	7	--------	--------	--------	--------
1,340	--------	1,020	--------	3,000	--------	--------	--------	3,860	--------	3,220	--------	1,870	--------	--------	--------	2
1,440	--------	1,080	--------	2,840	--------	--------	--------	3,940	--------	2,920	--------	1,740	--------	--------	--------	4
1,470	--------	1,000	--------	2,580	--------	--------	--------	3,910	--------	2,760	--------	1,780	--------	--------	--------	6
1,440	--------	1,140	--------	2,960	--------	--------	--------	4,280	--------	3,320	--------	1,810	--------	--------	--------	8
1,420	--------	1,140	--------	2,880	--------	--------	--------	4,300	--------	3,120	--------	1,840	--------	--------	--------	10
1,570	--------	1,180	--------	3,060	--------	--------	--------	3,930	--------	3,140	--------	1,970	--------	--------	--------	12
1,460	--------	1,000	--------	3,080	--------	--------	--------	4,290	--------	3,100	--------	2,050	--------	--------	--------	14
1,470	--------	1,040	--------	2,860	--------	--------	--------	4,370	--------	3,240	--------	2,140	--------	--------	--------	16
1,451	--------	1,075	--------	2,908	--------	--------	--------	4,110	--------	3,102	--------	1,900	--------	--------	--------	--------
64	--------	71	--------	160	--------	--------	--------	217	--------	182	--------	140	--------	--------	--------	--------
4	--------	7	--------	6	--------	--------	--------	5	--------	6	--------	7	--------	--------	--------	--------
1,340	--------	1,020	--------	3,000	--------	--------	--------	3,860	--------	3,220	--------	1,870	--------	--------	--------	2
1,440	--------	1,080	--------	2,840	--------	--------	--------	3,940	--------	2,920	--------	1,740	--------	--------	--------	4
1,470	--------	1,000	--------	2,580	--------	--------	--------	3,910	--------	2,760	--------	1,780	--------	--------	--------	6
1,440	--------	1,140	--------	2,960	--------	--------	--------	4,280	--------	3,320	--------	1,810	--------	--------	--------	8
1,420	--------	1,140	--------	2,880	--------	--------	--------	4,300	--------	3,120	--------	1,840	--------	--------	--------	10
1,570	--------	1,180	--------	3,060	--------	--------	--------	3,930	--------	3,140	--------	1,970	--------	--------	--------	12
1,460	--------	1,000	--------	3,080	--------	--------	--------	4,290	--------	3,100	--------	2,050	--------	--------	--------	14
1,470	--------	1,040	--------	2,860	--------	--------	--------	4,370	--------	3,240	--------	2,140	--------	--------	--------	16
1,451	--------	1,075	--------	2,908	--------	--------	--------	4,110	--------	3,102	--------	1,900	--------	--------	--------	--------
64	--------	71	--------	160	--------	--------	--------	217	--------	182	--------	140	--------	--------	--------	--------
4	--------	7	--------	6	--------	--------	--------	5	--------	6	--------	7	--------	--------	--------	--------

TABLE 10.—AMINO ACIDS: *Mean daily*

Year, location, diet, subject, and period	Tryptophan		Threonine		Isoleucine		Leucine		Lysine	
	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine
1954										
SIXTEEN 4-DAY PERIODS										
LOUISIANA—Continued										
Diet 1:										
Subject 11:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	885	7.80	2,820	--------	3,610	--------	5,700	--------	4,510	--------
4	836	8.00	2,810	--------	3,520	--------	5,380	--------	4,290	--------
6	780	9.20	2,850	--------	3,520	--------	5,160	--------	4,250	--------
8	829	9.80	2,900	--------	4,090	--------	5,680	--------	4,750	--------
10	856	9.70	2,900	--------	3,750	--------	5,660	--------	4,910	--------
12	850	8.80	3,200	--------	3,640	--------	5,740	--------	5,030	--------
14	827	10.10	2,940	--------	3,590	--------	5,620	--------	4,860	--------
16	848	8.60	2,900	--------	3,700	--------	5,840	--------	4,640	--------
Mean	839	9.00	2,915	--------	3,678	--------	5,598	--------	4,655	--------
S.D.	30	.85	124	--------	185	--------	220	--------	287	--------
C.V. (%)	4	9	4	--------	5	--------	4	--------	6	--------
5 subjects (La.):										
Mean	837	9.10	2,915	--------	3,678	--------	5,598	--------	4,655	--------
S.D.	28	2.38	117	--------	175	--------	209	--------	272	--------
C.V. (%)	3	26	4	--------	5	--------	4	--------	6	--------
11 subjects in 1954:										
Mean	763	8.99	2,672	--------	3,455	--------	5,263	--------	4,341	--------
S.D.	98	2.13	353	--------	438	--------	636	--------	538	--------
C.V. (%)	13	24	13	--------	13	--------	12	--------	12	--------
1956										
FOURTEEN 4-DAY PERIODS										
VIRGINIA:										
Diet 2:										
Subject 12:										
Period 2	557	4.20	--------	--------	--------	--------	--------	--------	--------	--------
4	556	4.24	1,970	21.0	2,770	6.5	4,330	19.8	2,990	36.4
6	575	5.42	2,110	25.8	2,710	7.2	4,290	15.8	2,980	41.5
8	394	3.74	1,310	22.9	1,760	7.0	2,640	15.7	1,880	32.8
10	541	4.86	1,990	22.8	2,670	5.7	4,290	11.6	3,060	32.9
12	568	3.02	2,040	19.7	2,820	6.9	4,410	20.6	2,840	45.2
14	558	4.25	2,000	23.0	2,780	7.8	4,290	24.2	2,950	57.7
Mean	536	4.25	1,903	22.5	2,585	6.8	4,042	18.0	2,783	41.1
S.D.	63	.77	295	2.1	408	.7	688	4.5	448	9.5
C.V. (%)	12	18	15	9	16	10	17	25	16	23
Diet 2:										
Subject 13:										
Period 2	557	5.84	--------	--------	--------	--------	--------	--------	--------	--------
4	556	3.85	1,970	24.0	2,770	6.5	4,330	12.2	2,990	41.2
6	575	7.62	2,110	25.0	2,710	7.1	4,290	15.0	2,980	37.2
8	601	3.96	1,970	21.0	2,680	4.8	4,310	10.7	3,000	29.7
10	541	4.84	1,990	22.4	2,670	4.7	4,290	9.8	3,060	27.4
12	568	6.24	2,040	22.9	2,820	7.5	4,410	24.3	2,840	48.7
14	558	5.58	2,000	22.2	2,780	7.4	4,290	14.8	2,950	50.7
Mean	565	5.42	2,013	22.9	2,738	6.3	4,320	14.5	2,970	39.2
S.D.	19	1.33	54	1.4	60	1.3	47	5.3	73	9.6
C.V. (%)	3	25	3	6	2	21	1	37	2	24
Diet 2:										
Subject 14:										
Period 2	557	4.35	--------	--------	--------	--------	--------	--------	--------	--------
4	556	4.14	1,970	22.0	2,770	7.0	4,330	18.1	2,990	48.3
6	575	4.88	2,110	14.0	2,710	3.6	4,290	10.9	2,980	51.4
8	601	3.64	1,970	18.6	2,680	7.0	4,310	17.5	3,000	39.8
10	541	6.00	1,990	18.7	2,670	4.5	4,290	10.2	3,060	28.7
12	568	6.07	2,040	21.0	2,820	10.5	4,410	34.5	2,840	59.9
14	558	5.76	2,000	24.1	2,780	7.6	4,290	36.2	2,950	65.6
Mean	565	4.98	2,013	19.7	2,738	6.7	4,320	21.2	2,970	49.0
S.D.	19	.98	54	3.5	60	2.4	47	11.4	73	13.4
C.V. (%)	3	20	3	18	2	36	1	54	2	27
3 subjects on diet 2:										
Mean	555	4.88	1,977	21.7	2,687	6.6	4,227	17.9	2,908	43.1
S.D.	40	1.11	174	2.8	238	1.6	399	7.8	266	11.2
C.V. (%)	7	23	9	13	9	24	9	44	9	26

intake and urinary excretion—Continued

Sulfur containing—				Phenylalanine		Tyrosine		Valine		Arginine		Histidine		Glutamic acid		Period
Methionine		Cystine		Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	
Intake	Urine	Intake	Urine													
Mg.	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	
1,340	--------	1,020	--------	3,000	--------	--------	--------	3,860	--------	3,220	--------	1,870	--------	--------	--------	2
1,440	--------	1,080	--------	2,849	--------	--------	--------	3,940	--------	2,920	--------	1,740	--------	--------	--------	4
1,470	--------	1,000	--------	2,580	--------	--------	--------	3,910	--------	2,760	--------	1,780	--------	--------	--------	6
1,440	--------	1,140	--------	2,960	--------	--------	--------	4,280	--------	3,320	--------	1,810	--------	--------	--------	8
1,420	--------	1,140	--------	2,880	--------	--------	--------	4,300	--------	3,120	--------	1,840	--------	--------	--------	10
1,570	--------	1,180	--------	3,060	--------	--------	--------	3,930	--------	3,140	--------	1,970	--------	--------	--------	12
1,460	--------	1,000	--------	3,080	--------	--------	--------	4,290	--------	3,100	--------	2,050	--------	--------	--------	14
1,470	--------	1,040	--------	2,860	--------	--------	--------	4,370	--------	3,240	--------	2,140	--------	--------	--------	16
1,451	--------	1,075	--------	2,908	--------	--------	--------	4,110	--------	3,102	--------	1,900	--------	--------	--------	--------
64	--------	71	--------	160	--------	--------	--------	217	--------	182	--------	140	--------	--------	--------	--------
4	--------	7	--------	6	--------	--------	--------	5	--------	6	--------	7	--------	--------	--------	--------
1,451	--------	1,075	--------	2,908	--------	--------	--------	4,110	--------	3,102	--------	1,900	--------	--------	--------	--------
60	--------	67	--------	152	--------	--------	--------	205	--------	173	--------	133	--------	--------	--------	--------
4	--------	6	--------	5	--------	--------	--------	5	--------	6	--------	7	--------	--------	--------	--------
1,346	--------	1,004	--------	2,762	--------	--------	--------	3,780	--------	2,968	--------	1,787	--------	--------	--------	--------
174	--------	115	--------	314	--------	--------	--------	490	--------	345	--------	236	--------	--------	--------	--------
13	--------	11	--------	11	--------	--------	--------	13	--------	12	--------	13	--------	--------	--------	--------
--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
1,100	4.3	502	40.7	2,220	13.4	1,247	24.1	2,820	15.2	2,050	19.9	1,300	72.4	8,540	144.2	4
1,110	4.5	444	35.8	2,270	12.9	1,422	23.1	2,840	13.2	2,010	19.3	1,320	85.8	8,720	150.4	6
680	5.5	284	52.0	1,350	15.3	888	24.1	1,740	15.2	1.370	18.2	740	65.3	5,750	181.1	8
1,010	4.9	523	39.7	2,220	11.9	1,307	18.4	2,740	11.2	1,920	16.0	1,330	65.4	8,260	126.5	10
1,000	4.8	414	39.5	2,170	6.9	1,315	17.2	2,750	25.2	1,960	18.3	1,360	52.8	9,290	133.6	12
1,010	5.6	425	37.4	2,140	11.0	1,402	25.5	2,770	13.0	1,900	25.1	1,360	82.5	8,600	181.8	14
985	4.9	432	40.8	2,062	11.9	1,264	22.1	2,610	15.5	1,868	19.5	1,235	70.7	8,193	152.9	--------
157	.5	84	5.7	352	2.9	195	3.4	428	5.0	250	3.1	244	12.2	1,244	23.6	--------
16	10	20	14	17	24	15	15	16	32	13	16	20	17	15	15	--------
--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	2
1,100	4.2	502	49.2	2,220	20.1	1,247	23.3	2,820	13.1	2,050	18.8	1,300	74.0	8,540	172.2	4
1,110	5.9	444	37.6	2,270	14.4	1,422	25.1	2,840	16.1	2,010	20.0	1,320	68.2	8,720	214.7	6
970	9.6	515	32.1	2,120	11.9	1,296	22.9	2,850	12.9	2,040	17.0	1,360	55.0	9,960	273.6	8
1,010	4.8	523	40.9	2,220	11.1	1,307	19.4	2,740	10.0	1,920	12.6	1,330	61.6	8,260	165.9	10
1,000	6.1	414	43.7	2,170	10.1	1,315	25.6	2,750	28.6	1,960	17.8	1,360	53.2	9,290	115.8	12
1,010	3.7	425	41.2	2,140	8.7	1,402	24.5	2,770	12.2	1,900	16.3	1,360	50.5	8,600	173.8	14
1,033	5.7	470	40.8	2,190	12.7	1,332	23.5	2,795	15.5	1,980	17.1	1,338	60.4	8,895	186.0	--------
58	2.1	48	5.7	57	4.1	67	2.2	48	6.7	63	2.6	26	9.2	622	53.2	--------
6	37	10	14	3	32	5	9	2	43	3	15	2	15	7	29	--------
--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	2
1,100	4.9	502	52.8	2,220	4.9	1,247	27.0	2,820	17.4	2,050	22.0	1,300	70.4	8,540	124.5	4
1,110	3.2	444	50.3	2,270	8.8	1,422	15.3	2,840	19.5	2,010	26.0	1,320	40.5	8,720	198.3	6
970	6.2	515	37.9	2,120	12.2	1,296	23.5	2,850	15.8	2,040	20.3	1,360	58.3	9,960	164.0	8
1,010	5.6	523	35.5	2,220	9.6	1,307	18.7	2,740	10.0	1,920	15.6	1,330	50.3	8,260	166.0	10
1,000	4.9	414	36.6	2,170	14.7	1,315	37.7	2,750	28.6	1,960	36.5	1,360	63.4	9,290	157.2	12
1,010	5.1	425	32.3	2,140	11.9	1,402	29.2	2,770	17.5	1,900	22.8	1,360	60.4	8,600	163.2	14
1,033	5.0	470	40.9	2,190	10.4	1,332	25.2	2,795	18.1	1,980	23.9	1,338	57.2	8,895	162.2	--------
58	1.0	48	8.5	57	3.4	67	8.0	48	6.1	63	7.1	26	10.5	622	23.5	--------
6	20	10	21	3	33	5	32	2	34	3	30	2	18	7	14	--------
1,017	5.2	458	40.8	2,147	11.7	1,309	23.6	2,733	16.4	1,943	20.1	1,304	62,8	8,661	167.0	--------
99	1.4	62	6.4	205	3.4	122	5.0	252	5.7	154	5.3	143	11.7	894	37.0	--------
10	27	14	16	10	29	9	21	9	35	8	26	11	19	10	22	--------

TABLE 10.—AMINO ACIDS: *Mean daily*

Year, location, diet, subject, and period	Tryptophan		Threonine		Isoleucine		Leucine		Lysine	
	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine
1956										
FOURTEEN 4-DAY PERIODS										
VIRGINIA—Continued										
Diet 3:										
Subject 15:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	871	4.91								
4	878	4.42	3,060	33.2	4,120	4.3	6,290	14.7	4,950	49.8
6	849	4.54	2,860	42.6	3,820	10.9	6,040	28.8	4,800	76.5
8	838	4.81	2,930	35.2	3,930	7.7	6,130	15.4	4,750	48.9
10	858	7.64	2,890	35.5	3,990	6.5	6,230	16.5	4,820	48.9
12	833	6.57	2,920	35.1	4,080	6.5	6,360	19.3	4,850	89.5
14	863	6.41	2,900	35.5	3,980	8.8	6,340	20.5	4,930	61.6
Mean	856	5.61	2,927	36.2	3,987	7.4	6,232	19.2	4,850	62.5
S.D.	17	1.25	70	3.3	107	2.3	126	5.2	77	17.1
C.V. (%)	2	22	2	9	3	31	2	27	2	27
Diet 3:										
Subject 16:										
Period 2	871	9.62								
4	878	6.58	3,060	29.9	4,120	7.8	6,290	18.6	4,950	60.0
6	849	4.14	2,860	26.6	3,820	7.1	6,040	20.4	4,800	51.7
8	838	6.25	2,930	31.6	3,930	6.5	6,130	18.0	4,750	49.6
10	858	6.81	2,890	31.5	3,990	6.4	6,230	18.7	4,820	54.4
12	833	6.64	2,920	18.0	4,080	7.5	6,360	21.5	4,850	47.6
14	863	4.41	2,900	12.1	3,980	3.1	6,340	19.8	4,930	15.8
Mean	856	6.35	2,927	25.0	3,987	6.4	6,232	19.5	4,850	46.5
S.D.	17	1.81	70	8.1	107	1.7	126	1.3	77	15.7
C.V. (%)	2	29	2	32	3	27	2	7	2	34
Diet 3:										
Subject 17:										
Period 2										
4										
6	849	6.28	2,860	25.5	3,820	5.6	6,040	17.9	4,800	60.4
8	838	7.26	2,930	28.0	3,930	5.1	6,130	15.4	4,750	57.6
10	858	5.25	2,890	30.5	3,990	5.5	6,230	17.1	4,820	60.2
12	833	5.88	2,920	38.2	4,080	1.5	6,360	13.8	4,850	43.9
14	863	6.25	2,900	22.3	3,980	8.1	6,340	42.5	4,930	47.8
Mean	848	6.18	2,900	28.9	3,960	5.2	6,220	21.3	4,830	54.0
S.D.	13	.73	27	6.0	95	2.4	137	11.9	67	7.6
C.V. (%)	2	12	1	21	2	46	2	56	1	14
3 subjects on diet 3:										
Mean	854	6.04	2,919	30.1	3,979	6.4	6,228	19.9	4,844	54.4
S.D.	15	1.36	58	7.6	98	2.2	120	6.7	70	15.2
C.V. (%)	2	23	2	25	2	34	2	34	1	28
Diet 4:										
Subject 18:										
Period 2	658	5.78								
4	709	5.26	2,400	26.5	3,410	9.3	4,820	17.6	3,710	46.9
6	671	3.72	2,420	21.1	3,360	6.0	4,750	14.3	3,610	34.7
8	666	4.06	2,310	24.7	3,310	6.5	4,650	12.9	3,590	34.0
10	678	6.82	2,250	34.5	3,400	8.3	4,650	19.7	3,820	44.7
12	670	7.70	2,320	29.3	3,420	5.5	4,720	17.8	3,710	22.3
14	642	6.16	2,410	23.1	3,380	1.8	4,770	9.6	3,790	38.2
Mean	671	5.64	2,352	26.5	3,380	6.2	4,727	15.3	3,705	36.8
S.D.	21	1.43	68	4.8	40	2.6	68	3.7	92	8.8
C.V. (%)	3	25	3	18	1	42	1	24	2	24
Diet 4:										
Subject 19:										
Period 2	658	7.16								
4	709	5.32	2,400	33.7	4,310	9.5	4,820	19.4	3,710	59.6
6	671	6.59	2,420	26.9	3,360	5.9	4,750	16.9	3,610	45.2
8	666	4.78	2,310	31.5	3,310	7.7	4,650	17.4	3,590	44.4
10	678	7.90	2,250	31.4	3,400	8.5	4,650	19.0	3,820	46.3
12	670	6.02	2,320	22.7	3,420	8.1	4,720	35.0	3,710	56.5
14	642	7.08	2,410	32.4	3,380	5.3	4,770	33.3	3,790	53.9
Mean	671	6.41	2,352	29.8	3,380	7.5	4,727	23.5	3,705	51.0
S.D.	21	1.10	68	4.2	40	1.6	68	8.3	92	6.5
C.V. (%)	3	17	3	14	1	21	1	35	2	13

intake and urinary excretion—Continued

Sulfur containing—				Phenylalanine		Tyrosine		Valine		Arginine		Histidine		Glutamic acid		Period
Methionine		Cystine		Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	
Intake	Urine	Intake	Urine													
Mg.	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	
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1, 720	9. 0	752	60. 1	3, 120	11. 3	2, 157	23. 7	4, 330	14. 4	4, 010	24. 3	2, 050	99. 1	13, 250	200. 3	4
1, 590	10. 5	754	38. 1	3, 110	18. 0	2, 199	31. 3	4, 250	25. 7	3, 700	27. 4	2, 010	137. 1	12, 920	358. 1	6
1, 580	9. 6	818	42. 4	3, 150	10. 2	2, 266	21. 3	4, 200	17. 6	3, 650	20. 8	1, 990	98. 5	12, 420	249. 9	8
1, 440	9. 1	573	44. 4	3, 080	11. 7	1, 549	22. 7	4, 200	17. 8	3, 670	23. 8	2, 000	103. 1	13, 040	274. 6	10
1, 540	11. 3	725	46. 9	3, 170	13. 7	2, 086	21. 3	4, 470	21. 2	3, 870	17. 9	2, 010	103. 6	12, 900	276. 2	12
1, 620	7. 9	745	47. 6	3, 190	7. 5	2, 297	19. 9	4, 400	15. 2	3, 840	26. 7	2, 000	98. 1	12, 360	294. 1	14
1, 582	9. 6	728	46. 6	3, 137	12. 1	2, 092	23. 4	4, 308	18. 6	3, 790	23. 5	2, 010	106. 6	12, 815	275. 5	--------
92	1. 2	82	7. 5	41	3. 5	277	4. 1	111	4. 2	141	3. 6	21	15. 1	352	51. 9	--------
6	12	11	16	1	29	13	18	3	23	4	15	1	14	3	19	--------
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1, 720	6. 7	752	48. 6	3, 120	6. 7	2, 157	26. 1	4, 330	17. 9	4, 010	26. 0	2, 050	97. 5	13, 250	190. 9	4
1, 590	5. 8	754	49. 6	3, 110	4. 3	2, 199	23. 2	4, 250	18. 4	3, 700	26. 4	2, 010	87. 4	12, 920	167. 6	6
1, 580	9. 4	818	33. 6	3, 150	13. 0	2, 266	23. 0	4, 200	22. 5	3, 650	23. 4	1, 990	92. 0	12, 420	220. 8	8
1, 440	9. 1	573	48. 5	3, 080	14. 9	1, 549	29. 1	4, 200	16. 3	3, 670	21. 8	2, 000	82. 8	13, 040	235. 5	10
1, 540	10. 2	725	35. 8	3, 170	10. 1	2, 086	19. 7	4, 470	14. 3	3, 870	12. 8	2, 010	78. 7	12, 900	166. 2	12
1, 620	4. 2	745	38. 9	3, 190	17. 1	2, 297	10. 0	4, 400	8. 1	3, 840	10. 9	2, 000	46. 1	12, 360	214. 3	14
1, 582	7. 6	728	42. 5	3, 137	11. 0	2, 092	21. 8	4, 308	16. 2	3, 790	20. 2	2, 010	80. 8	12, 815	199. 2	--------
92	2. 4	82	7. 2	41	4. 9	277	6. 6	111	4. 8	141	6. 7	21	18. 2	352	28. 9	--------
6	32	11	17	1	45	13	30	3	30	4	33	1	23	3	15	--------
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1, 590	4. 5	754	44. 8	3, 110	12. 7	2, 199	22. 2	4, 250	14. 8	3, 700	23. 0	2, 010	87. 7	12, 920	273. 3	6
1, 580	8. 3	818	37. 7	3, 150	15. 6	2, 266	27. 7	4, 200	20. 9	3, 650	22. 6	1, 990	95. 9	12, 420	236. 6	8
1, 440	7. 6	573	46. 2	3, 080	12. 6	1, 549	21. 5	4, 200	15. 9	3, 670	17. 1	2, 000	95. 2	13, 040	232. 7	10
1, 540	6. 1	725	52. 0	3, 170	8. 1	2, 086	13. 7	4, 470	9. 0	3, 870	13. 1	2, 010	46. 2	12, 900	121. 4	12
1, 620	4. 2	745	49. 2	3, 190	16. 2	2, 297	24. 5	4, 400	11. 7	3, 840	15. 4	2, 000	109. 2	12, 360	163. 1	14
1, 554	6. 1	723	46. 0	3, 140	13. 0	2, 079	21. 9	4, 304	14. 5	3, 746	18. 2	2, 002	86. 8	12, 728	205. 4	--------
70	1. 8	91	5. 4	45	3. 2	307	5. 2	124	4. 5	102	4. 4	8	24. 0	314	61. 6	--------
4	30	13	12	1	25	15	24	3	31	3	24	0	28	2	30	--------
1, 574	7. 9	726	45. 0	3, 138	12. 0	2, 088	22. 4	4, 307	16. 6	3, 777	20. 8	2, 008	91. 7	12, 789	228. 0	--------
82	2. 3	79	6. 7	39	3. 8	267	5. 1	108	4. 6	124	5. 3	18	21. 3	322	58. 0	--------
5	29	11	15	1	32	13	23	2	28	3	25	1	23	3	25	--------
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1, 140	7. 3	510	58. 5	2, 390	13. 6	1, 637	16. 7	3, 340	20. 0	3, 160	28. 0	1, 550	91. 9	11, 130	118. 5	4
1, 170	5. 8	544	44. 0	2, 400	10. 3	1, 674	21. 1	3, 400	12. 9	3, 170	15. 1	1, 610	77. 1	10, 200	163. 0	6
1, 180	8. 1	636	36. 4	2, 330	13. 1	1, 558	25. 7	3, 440	15. 9	3, 160	21. 1	1, 520	82. 7	9, 630	161. 7	8
1, 190	7. 8	489	46. 0	2, 320	14. 5	1, 500	18. 3	3, 260	17. 4	3, 070	21. 1	1, 520	107. 7	9, 960	167. 7	10
1, 280	9. 6	550	33. 9	2, 410	6. 4	1, 556	24. 8	3, 340	13. 0	3, 240	22. 9	1, 620	134. 0	11, 730	190. 2	12
1, 220	2. 8	495	37. 4	2, 420	15. 0	1, 656	8. 0	3, 460	24. 3	3, 310	9. 2	1, 550	79. 0	10, 200	116. 3	14
1, 197	6. 9	537	42. 7	2, 378	12. 2	1, 597	19. 1	3, 373	17. 2	3, 185	19. 6	1, 562	95. 4	10, 475	152, 9	--------
48	2. 4	54	9. 0	43	3. 3	69	6. 5	74	4. 4	82	6. 5	44	22. 0	792	29. 4	--------
4	35	10	21	2	27	4	34	2	26	3	33	3	23	8	19	--------
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1, 140	6. 8	510	59. 6	2, 390	18. 5	1, 637	31. 7	3, 340	28. 9	3, 160	30. 0	1, 550	98. 4	11, 130	281. 1	4
1, 170	4. 8	544	60. 7	2, 400	13. 5	1, 674	27. 3	3, 400	17. 1	3, 170	18. 4	1, 610	69. 8	10, 200	173. 4	6
1, 180	16. 2	636	48. 8	2, 330	15. 6	1, 558	29. 5	3, 440	16. 7	3, 160	23. 1	1, 520	80. 7	9, 630	250. 3	8
1, 190	8. 0	489	61. 2	2, 320	16. 7	1, 500	34. 5	3, 260	17. 8	3, 070	21. 0	1, 520	78. 3	9, 960	290. 7	10
1, 280	5. 1	550	42. 3	2, 410	9. 3	1, 556	25. 4	3, 340	32. 0	3, 240	19. 3	1, 620	65. 7	11, 730	109. 5	12
1, 220	8. 7	495	52. 7	2, 420	17. 5	1, 656	32. 3	3, 460	14. 3	3, 310	24. 5	1, 550	90. 6	10, 200	152. 6	14
1, 197	8. 3	537	54. 2	2, 378	15. 2	1, 597	30. 1	3, 373	21. 1	3, 185	22. 7	1, 562	80. 6	10, 475	209. 6	--------
48	4. 2	54	7. 7	43	3. 4	69	3. 4	74	7. 4	82	4. 2	44	12. 3	792	74. 7	--------
4	51	10	14	2	22	4	11	2	35	3	19	3	15	8	36	--------

Table 10.—AMINO ACIDS: *Mean daily*

Year, location, diet, subject, and period	Tryptophan		Threonine		Isoleucine		Leucine		Lysine	
	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine
1956										
FOURTEEN 4-DAY PERIODS										
VIRGINIA:—Continued										
Diet 4:										
Subject 20:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	658	9.02	---	---	---	---	---	---	---	---
4	709	6.59	2,400	34.9	3,410	8.7	4,820	18.5	3,710	59.1
6	671	4.96	2,420	24.8	3,360	5.7	4,750	15.1	3,610	42.9
8	598	5.11	2,120	24.8	2,920	5.9	4,630	13.7	3,350	37.6
10	678	8.85	2,250	25.2	3,400	7.0	4,650	13.9	3,820	41.9
12	670	8.60	2,320	25.1	3,420	8.8	4,720	20.7	3,710	47.3
14	642	7.41	2,410	30.9	3,380	10.8	4,770	23.9	3,790	43.7
Mean	661	7.22	2,320	27.6	3,315	7.8	4,723	17.6	3,665	45.4
S.D.	34	1.72	118	4.3	195	2.0	73	4.1	171	7.4
C.V. (%)	5	24	5	16	6	26	2	23	5	16
3 subjects on diet 4:										
Mean	667	6.42	2,341	28.0	3,358	7.2	4,726	18.8	3,692	44.4
S.D.	25	1.52	84	4.4	114	2.1	65	6.5	118	9.4
C.V. (%)	4	24	4	16	3	29	1	35	3	21
Diet 5:										
Subject 21:										
Period 2	865	12.36	---	---	---	---	---	---	---	---
4	916	10.55	3,410	42.6	4,970	9.8	6,760	25.9	6,140	102.7
6	848	11.88	3,290	36.4	4,910	6.3	6,640	21.2	6,240	56.5
8	888	10.75	3,370	46.5	4,960	9.0	6,570	25.9	6,180	93.0
10	902	8.84	3,480	47.8	5,140	9.3	6,720	23.0	6,470	85.6
12	892	9.96	3,510	31.7	5,170	2.5	6,780	20.8	6,480	72.0
14	861	7.33	3,340	15.7	5,190	5.3	6,590	10.9	6,250	32.8
Mean	882	10.24	3,400	36.8	5,057	7.0	6,677	21.3	6,293	73.8
S.D.	24	1.73	84	12.0	123	2.9	89	5.5	146	25.8
C.V. (%)	3	17	2	33	2	41	1	26	2	35
Diet 5:										
Subject 22:										
Period 2	865	6.38	---	---	---	---	---	---	---	---
4	916	3.65	3,410	38.0	4,970	6.9	6,760	19.0	6,140	71.7
6	848	3.16	3,290	35.6	4,910	7.6	6,640	24.8	6,240	62.3
8	888	4.30	3,370	30.8	4,960	7.8	6,570	19.5	6,180	51.4
10	902	4.11	3,480	18.7	5,140	3.6	6,720	13.1	6,470	25.8
12	892	3.60	3,510	34.0	5,170	8.5	6,780	27.7	6,480	34.5
14	861	3.68	3,340	28.0	5,190	21.9	6,590	22.8	6,250	66.7
Mean	882	4.13	3,400	30.8	5,057	9.4	6,677	21.2	6,293	52.1
S.D.	24	1.06	84	6.9	123	6.4	89	5.1	146	18.5
C.V. (%)	3	26	2	22	2	68	1	24	2	36
Diet 5:										
Subject 23:										
Period 2	865	9.29	---	---	---	---	---	---	---	---
4	916	10.60	3,410	41.8	4,970	8.1	6,760	21.0	6,140	63.9
6	848	5.15	3,290	33.1	4,910	7.5	6,640	32.6	6,240	51.3
8	888	8.48	3,370	37.3	4,960	7.7	6,570	21.3	6,180	58.2
10	902	11.08	3,480	42.2	5,140	10.7	6,720	25.6	6,470	59.5
12	892	10.50	3,510	36.8	5,170	8.6	6,780	29.7	6,480	36.2
14	861	10.06	3,340	30.2	5,190	10.9	6,590	18.1	6,250	48.1
Mean	882	9.31	3,400	36.9	5,057	8.9	6,677	24.7	6,293	52.9
S.D.	24	2.03	84	4.7	123	1.5	89	5.6	146	10.0
C.V. (%)	3	22	2	13	2	17	1	23	2	19
3 subjects on diet 5:										
Mean	882	7.89	3,400	34.8	5,057	8.4	6,677	22.4	6,293	59.6
S.D.	23	3.17	79	8.5	116	4.0	84	5.4	138	20.8
C.V. (%)	3	40	2	24	2	48	1	24	2	35
12 subjects in 1956:										
Mean	737	6.31	2,656	28.6	3,767	7.2	5,454	19.8	4,428	50.3
S.D.	139	2.23	561	7.7	896	2.7	1,048	6.7	1,303	16.1
C.V. (%)	19	35	21	27	24	38	19	34	29	32

intake and urinary excretion—Continued

Sulfur containing—				Phenylalanine		Tyrosine		Valine		Arginine		Histidine		Glutamic acid		Period
Methionine		Cystine		Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	
Intake	Urine	Intake	Urine													
Mg.	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	
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1,140	5.7	510	53.9	2,390	16.5	1,637	29.9	3,340	24.0	3,160	31.1	1,550	73.4	11,130	162.4	4
1,170	3.9	544	54.3	2,400	12.3	1,674	29.4	3,400	15.1	3,170	17.5	1,610	63.0	10,200	189.9	6
1,180	9.3	540	29.2	2,340	12.5	1,302	25.7	2,930	13.5	2,140	19.2	1,150	67.5	9,620	148.9	8
1,190	6.6	489	38.8	2,320	6.1	1,500	33.9	3,260	14.3	3,070	21.9	1,520	55.2	9,960	115.0	10
1,280	6.7	550	41.2	2,410	12.9	1,556	39.5	3,340	14.2	3,240	23.4	1,620	74.0	11,730	105.3	12
1,220	7.5	495	47.1	2,420	15.3	1,656	27.4	3,460	13.2	3,310	25.8	1,550	59.8	10,200	139.4	14
1,197	6.6	521	44.1	2,380	12.6	1,554	31.0	3,288	15.7	3,015	23.2	1,500	65.5	10,473	143.5	--------
48	1.8	27	9.7	40	3.6	140	5.0	188	4.1	436	4.9	176	7.5	794	31.1	--------
4	27	5	22	2	29	9	16	6	26	14	21	12	11	8	22	--------
1,197	7.3	532	47.0	2,379	13.3	1,583	26.7	3,345	18.0	3,128	21.8	1,541	80.5	10,474	168.7	--------
46	2.9	45	9.8	39	3.5	95	7.3	124	5.7	258	5.3	105	19.0	744	55.5	--------
4	40	8	21	2	26	6	27	4	32	8	24	7	24	7	33	--------
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2,050	7.3	750	57.8	3,670	20.6	2,244	29.4	5,370	24.0	5,430	33.6	2,070	186.2	13,850	253.2	4
1,800	7.8	786	51.6	3,550	14.6	2,160	25.7	5,200	17.1	5,160	26.0	2,070	130.5	15,480	196.7	6
1,970	23.1	718	69.8	3,590	22.3	2,058	35.5	5,030	25.6	4,960	37.3	2,040	192.8	15,160	250.5	8
1,930	10.8	804	47.8	3,660	20.9	2,260	32.5	5,080	18.7	5,060	28.2	2,110	156.4	14,960	338.8	10
2,090	9.9	768	44.8	3,720	12.7	2,160	24.5	5,230	15.9	5,570	24.5	2,170	110.5	16,210	215.3	12
1,900	3.2	832	47.6	3,610	7.3	2,166	14.0	5,070	7.7	5,440	11.2	2,080	93.0	14,010	111.6	14
1,957	10.4	776	53.2	3,633	16.4	2,175	26.9	5,163	18.2	5,270	26.8	2,090	144.9	14,945	227.7	--------
105	6.8	40	9.3	62	5.9	72	7.6	128	6.4	244	9.0	45	40.5	895	75.0	--------
5	65	5	17	2	36	3	28	2	35	5	34	2	28	6	33	--------
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2
2,050	8.4	750	51.7	3,670	13.4	2,244	24.7	5,370	15.9	5,430	28.7	2,070	130.5	13,850	325.7	4
1,800	8.3	786	59.9	3,550	14.4	2,160	24.2	5,200	21.7	5,160	33.1	2,070	123.5	15,480	408.1	6
1,970	20.2	718	36.6	3,590	12.2	2,058	23.8	5,030	19.7	4,960	31.5	2,040	118.6	15,160	332.5	8
1,930	5.2	804	36.5	3,660	7.5	2,260	10.9	5,080	10.1	5,060	13.5	2,110	55.0	14,960	198.4	10
2,090	6.9	768	42.4	3,720	15.5	2,160	24.1	5,230	17.7	5,570	30.7	2,170	124.7	16,210	308.3	12
1,900	13.7	832	52.1	3,610	13.4	2,166	22.3	5,070	16.8	5,440	27.6	2,080	93.9	14,010	340.2	14
1,957	10.4	776	46.5	3,633	12.7	2,175	21.7	5,163	17.0	5,270	27.5	2,090	107.7	14,945	318.9	--------
105	5.6	40	9.5	62	2.8	72	5.3	128	4.0	244	7.1	45	28.8	895	68.2	--------
5	54	5	20	2	22	3	24	2	24	5	26	2	27	6	21	--------
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2
2,050	8.7	750	45.5	3,670	17.2	2,244	14.9	5,370	15.9	5,430	30.1	2,070	126.7	13,850	213.3	4
1,800	7.4	786	65.3	3,550	16.2	2,160	26.5	5,200	20.0	5,160	28.8	2,070	89.8	15,480	186.0	6
1,970	19.5	718	40.0	3,590	16.8	2,058	30.9	5,030	20.3	4,960	31.2	2,040	124.2	15,160	208.5	8
1,930	9.7	804	44.2	3,660	17.7	2,260	28.6	5,080	20.7	5,060	27.5	2,110	115.9	14,960	313.9	10
2,090	14.1	768	33.3	3,720	17.0	2,160	20.3	5,230	19.1	5,570	27.5	2,170	131.5	16,210	300.0	12
1,900	5.9	832	34.2	3,610	8.9	2,166	19.5	5,070	13.1	5,440	21.6	2,080	87.3	14,010	201.6	14
1,957	10.9	776	43.8	3,633	15.6	2,175	23.4	5,163	18.2	5,270	27.8	2,090	112.6	14,945	237.2	--------
105	5.1	40	11.7	62	3.3	72	6.2	128	3.0	244	3.4	45	19.3	895	55.0	--------
5	47	5	27	2	21	3	26	2	16	5	12	2	17	6	23	--------
1,957	10.6	776	47.8	3,633	14.9	2,175	24.0	5,163	17.8	5,270	27.4	2,090	121.7	14,945	262.9	--------
99	5.5	38	10.4	58	4.3	68	6.4	120	4.4	229	6.5	42	33.5	841	74.3	--------
5	52	5	22	2	29	3	27	2	25	4	24	2	28	6	28	--------
1,434	7.7	622	45.2	2,820	13.0	1,784	24.2	3,881	17.2	3,526	22.6	1,732	89.1	11,702	206.4	--------
375	3.8	145	8.8	611	3.9	392	6.2	951	5.1	1,233	6.2	341	31.2	2,506	69.9	--------
26	49	23	19	22	30	22	26	25	30	35	27	20	35	21	34	--------

TABLE 10.—AMINO ACIDS: *Mean daily*

Year, location, diet, subject, and period	Tryptophan		Threonine		Isoleucine		Leucine		Lysine	
	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine
1957										
FOUR 6-DAY PERIODS										
VIRGINIA:										
Diet 6:										
Subject 12:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	390	---	1,460	---	2,000	---	2,680	---	2,090	---
2	480	---	1,420	---	1,950	---	2,830	---	2,130	---
3	460	---	1,380	---	1,980	---	2,790	---	2,230	---
4	470	---	1,410	---	2,060	---	2,760	---	2,170	---
Mean	450	---	1,418	---	1,998	---	2,765	---	2,155	---
S.D.	41	---	33	---	46	---	64	---	60	---
C.V. (%)	9	---	2	---	2	---	2	---	3	---
Diet 6:										
Subject 13:										
Period 1	390	---	1,460	---	2,000	---	2,680	---	2,090	---
2	480	---	1,420	---	1,950	---	2,830	---	2,130	---
3	460	---	1,380	---	1,980	---	2,790	---	2,230	---
4	470	---	1,410	---	2,060	---	2,760	---	2,170	---
Mean	450	---	1,418	---	1,998	---	2,765	---	2,155	---
S.D.	41	---	33	---	46	---	64	---	60	---
C.V. (%)	9	---	2	---	2	---	2	---	3	---
Diet 6:										
Subject 14:										
Period 1	390	---	1,460	---	2,000	---	2,680	---	2,090	---
2	480	---	1,420	---	1,950	---	2,830	---	2,130	---
3	460	---	1,380	---	1,980	---	2,790	---	2,230	---
4	470	---	1,410	---	2,060	---	2,760	---	2,170	---
Mean	450	---	1,418	---	1,998	---	2,765	---	2,155	---
S.D.	41	---	33	---	46	---	64	---	60	---
C.V. (%)	9	---	2	---	2	---	2	---	3	---
Diet 6:										
Subject 15:										
Period 1	390	---	1,460	---	2,000	---	2,680	---	2,090	---
2	480	---	1,420	---	1,950	---	2,830	---	2,130	---
3	460	---	1,380	---	1,980	---	2,790	---	2,230	---
4	470	---	1,410	---	2,060	---	2,760	---	2,170	---
Mean	450	---	1,418	---	1,998	---	2,765	---	2,155	---
S.D.	41	---	33	---	46	---	64	---	60	---
C.V. (%)	9	---	2	---	2	---	2	---	3	---
Diet 6:										
Subject 17:										
Period 1	390	---	1,460	---	2,000	---	2,680	---	2,090	---
2	480	---	1,420	---	1,950	---	2,830	---	2,130	---
3	460	---	1,380	---	1,980	---	2,790	---	2,230	---
4	470	---	1,410	---	2,060	---	2,760	---	2,170	---
Mean	450	---	1,418	---	1,998	---	2,765	---	2,155	---
S.D.	41	---	33	---	46	---	64	---	60	---
C.V. (%)	9	---	2	---	2	---	2	---	3	---
Diet 6:										
Subject 36:										
Period 1	390	---	1,460	---	2,000	---	2,680	---	2,090	---
2	480	---	1,420	---	1,950	---	2,830	---	2,130	---
3	460	---	1,380	---	1,980	---	2,790	---	2,230	---
4	470	---	1,410	---	2,060	---	2,760	---	2,170	---
Mean	450	---	1,418	---	1,998	---	2,765	---	2,155	---
S.D.	41	---	33	---	46	---	64	---	60	---
C.V. (%)	9	---	2	---	2	---	2	---	3	---
6 subjects on diet 6:										
Mean	450	---	1,418	---	1,998	---	2,765	---	2,155	---
S.D.	36	---	29	---	41	---	56	---	53	---
C.V. (%)	8	---	2	---	2	---	2	---	2	---
Diet 7:										
Subject 19:										
Period 1	530	---	1,890	---	2,600	---	3,560	---	2,960	---
2	570	---	1,680	---	2,520	---	3,490	---	2,990	---
3	570	---	1,860	---	2,570	---	3,460	---	3,170	---
4	560	---	1,660	---	2,410	---	3,370	---	3,190	---
Mean	558	---	1,772	---	2,525	---	3,470	---	3,078	---
S.D.	19	---	119	---	84	---	79	---	119	---
C.V. (%)	3	---	7	---	3	---	2	---	4	---

intake and urinary excretion—Continued

Sulfur containing—				Phenylalanine		Tyrosine		Valine		Arginine		Histidine		Glutamic acid		Period
Methionine		Cystine		Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	
Intake	Urine	Intake	Urine													
Mg.	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	
730	--------	440	--------	1,610	--------	--------	--------	2,430	--------	1,860	--------	1,070	--------	--------	--------	1
710	--------	400	--------	1,570	--------	--------	--------	2,400	--------	2,030	--------	1,080	--------	--------	--------	2
730	--------	430	--------	1,570	--------	--------	--------	2,430	--------	2,060	--------	1,120	--------	--------	--------	3
700	--------	370	--------	1,640	--------	--------	--------	2,230	--------	2,340	--------	1,100	--------	--------	--------	4
718	--------	410	--------	1,598	--------	--------	--------	2,372	--------	2,072	--------	1,092	--------	--------	--------	--------
15	--------	32	--------	34	--------	--------	--------	96	--------	199	--------	22	--------	--------	--------	--------
2	--------	8	--------	2	--------	--------	--------	4	--------	10	--------	2	--------	--------	--------	--------
730	--------	440	--------	1,610	--------	--------	--------	2,430	--------	1,860	--------	1,070	--------	--------	--------	1
710	--------	400	--------	1,570	--------	--------	--------	2,400	--------	2,030	--------	1,080	--------	--------	--------	2
730	--------	430	--------	1,570	--------	--------	--------	2,430	--------	2,060	--------	1,120	--------	--------	--------	3
700	--------	370	--------	1,640	--------	--------	--------	2,230	--------	2,340	--------	1,100	--------	--------	--------	4
718	--------	410	--------	1,598	--------	--------	--------	2,372	--------	2,072	--------	1,092	--------	--------	--------	--------
15	--------	32	--------	34	--------	--------	--------	96	--------	199	--------	22	--------	--------	--------	--------
2	--------	8	--------	2	--------	--------	--------	4	--------	10	--------	2	--------	--------	--------	--------
730	--------	440	--------	1,610	--------	--------	--------	2,430	--------	1,860	--------	1,070	--------	--------	--------	1
710	--------	400	--------	1,570	--------	--------	--------	2,400	--------	2,030	--------	1,080	--------	--------	--------	2
730	--------	430	--------	1,570	--------	--------	--------	2,430	--------	2,060	--------	1,120	--------	--------	--------	3
700	--------	370	--------	1,640	--------	--------	--------	2,230	--------	2,340	--------	1,100	--------	--------	--------	4
718	--------	410	--------	1,598	--------	--------	--------	2,372	--------	2,072	--------	1,092	--------	--------	--------	--------
15	--------	32	--------	34	--------	--------	--------	96	--------	199	--------	22	--------	--------	--------	--------
2	--------	8	--------	2	--------	--------	--------	4	--------	10	--------	2	--------	--------	--------	--------
730	--------	440	--------	1,610	--------	--------	--------	2,430	--------	1,860	--------	1,070	--------	--------	--------	1
710	--------	400	--------	1,570	--------	--------	--------	2,400	--------	2,030	--------	1,080	--------	--------	--------	2
730	--------	430	--------	1,570	--------	--------	--------	2,430	--------	2,060	--------	1,120	--------	--------	--------	3
700	--------	370	--------	1,640	--------	--------	--------	2,230	--------	2,340	--------	1,100	--------	--------	--------	4
718	--------	410	--------	1,598	--------	--------	--------	2,372	--------	2,072	--------	1,092	--------	--------	--------	--------
15	--------	32	--------	34	--------	--------	--------	96	--------	199	--------	22	--------	--------	--------	--------
2	--------	8	--------	2	--------	--------	--------	4	--------	10	--------	2	--------	--------	--------	--------
730	--------	440	--------	1,610	--------	--------	--------	2,430	--------	1,860	--------	1,070	--------	--------	--------	1
710	--------	400	--------	1,570	--------	--------	--------	2,400	--------	2,030	--------	1,080	--------	--------	--------	2
730	--------	430	--------	1,570	--------	--------	--------	2,430	--------	2,060	--------	1,120	--------	--------	--------	3
700	--------	370	--------	1,640	--------	--------	--------	2,230	--------	2,340	--------	1,100	--------	--------	--------	4
718	--------	410	--------	1,598	--------	--------	--------	2,372	--------	2,072	--------	1,092	--------	--------	--------	--------
15	--------	32	--------	34	--------	--------	--------	96	--------	199	--------	22	--------	--------	--------	--------
2	--------	8	--------	2	--------	--------	--------	4	--------	10	--------	2	--------	--------	--------	--------
730	--------	440	--------	1,610	--------	--------	--------	2,430	--------	1,860	--------	1,070	--------	--------	--------	1
710	--------	400	--------	1,570	--------	--------	--------	2,400	--------	2,030	--------	1,080	--------	--------	--------	2
730	--------	430	--------	1,570	--------	--------	--------	2,430	--------	2,060	--------	1,120	--------	--------	--------	3
700	--------	370	--------	1,640	--------	--------	--------	2,230	--------	2,340	--------	1,100	--------	--------	--------	4
718	--------	410	--------	1,598	--------	--------	--------	2,372	--------	2,072	--------	1,092	--------	--------	--------	--------
15	--------	32	--------	34	--------	--------	--------	96	--------	199	--------	22	--------	--------	--------	--------
2	--------	8	--------	2	--------	--------	--------	4	--------	10	--------	2	--------	--------	--------	--------
718	--------	410	--------	1,598	--------	--------	--------	2,372	--------	2,072	--------	1,092	--------	--------	--------	--------
13	--------	28	--------	30	--------	--------	--------	85	--------	176	--------	20	--------	--------	--------	--------
2	--------	7	--------	2	--------	--------	--------	4	--------	8	--------	2	--------	--------	--------	--------
970	--------	570	--------	2,020	--------	--------	--------	3,120	--------	2,580	--------	1,240	--------	--------	--------	1
800	--------	460	--------	1,960	--------	--------	--------	2,760	--------	2,180	--------	1,330	--------	--------	--------	2
800	--------	550	--------	2,010	--------	--------	--------	2,720	--------	2,390	--------	1,170	--------	--------	--------	3
780	--------	450	--------	1,880	--------	--------	--------	2,600	--------	2,400	--------	980	--------	--------	--------	4
868	--------	508	--------	1,968	--------	--------	--------	2,800	--------	2,388	--------	1,180	--------	--------	--------	--------
78	--------	61	--------	64	--------	--------	--------	224	--------	164	--------	149	--------	--------	--------	--------
9	--------	12	--------	3	--------	--------	--------	8	--------	7	--------	13	--------	--------	--------	--------

TABLE 10.—AMINO ACIDS: *Mean daily*

Year, location, diet, subject, and period	Tryptophan		Threonine		Isoleucine		Leucine		Lysine	
	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine
1957										
FOUR 6-DAY PERIODS										
VIRGINIA—Continued										
Diet 7:										
Subject 21:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	530	---------	1,890	---------	2,600	---------	3,560	---------	2,960	---------
2	570	---------	1,680	---------	2,520	---------	3,490	---------	2,990	---------
3	570	---------	1,860	---------	2,570	---------	3,460	---------	3,170	---------
4	560	---------	1,660	---------	2,410	---------	3,370	---------	3,190	---------
Mean	558	---------	1,772	---------	2,525	---------	3,470	---------	3,078	---------
S.D.	19	---------	119	---------	84	---------	79	---------	119	---------
C.V. (%)	3	---------	7	---------	3	---------	2	---------	4	---------
Diet 7:										
Subject 22:										
Period 1	530	---------	1,890	---------	2,600	---------	3,560	---------	2,960	---------
2	570	---------	1,680	---------	2,520	---------	3,490	---------	2,990	---------
3	570	---------	1,860	---------	2,570	---------	3,460	---------	3,170	---------
4	560	---------	1,660	---------	2,410	---------	3,370	---------	3,190	---------
Mean	558	---------	1,772	---------	2,525	---------	3,470	---------	3,078	---------
S.D.	19	---------	119	---------	84	---------	79	---------	119	---------
C.V. (%)	3	---------	7	---------	3	---------	2	---------	4	---------
Diet 7:										
Subject 23:										
Period 1	530	---------	1,890	---------	2,600	---------	3,560	---------	2,960	---------
2	570	---------	1,680	---------	2,520	---------	3,490	---------	2,990	---------
3	570	---------	1,860	---------	2,570	---------	3,460	---------	3,170	---------
4	560	---------	1,660	---------	2,410	---------	3,370	---------	3,190	---------
Mean	558	---------	1,772	---------	2,525	---------	3,470	---------	3,078	---------
S.D.	19	---------	119	---------	84	---------	79	---------	119	---------
C.V. (%)	3	---------	7	---------	3	---------	2	---------	4	---------
4 subjects on diet 7:										
Mean	558	---------	1,772	---------	2,525	---------	3,470	---------	3,078	---------
S.D.	17	---------	107	---------	75	---------	70	---------	107	---------
C.V. (%)	3	---------	6	---------	3	---------	2	---------	3	---------
10 subjects in 1957:										
Mean	493	---------	1,560	---------	2,208	---------	3,047	---------	2,524	---------
S.D.	61	---------	190	---------	268	---------	355	---------	464	---------
C.V. (%)	12	---------	12	---------	12	---------	12	---------	18	---------
1958										
EIGHT 6-DAY PERIODS										
VIRGINIA:										
Diet 8:										
Subject 24:										
Period 1	197	5.46	760	19.7	1,080	4.8	1,640	16.3	1,340	27.9
2	173	5.52	750	21.0	1,090	7.0	1,620	17.5	1,330	16.0
3	197	6.14	780	18.8	1,080	5.2	1,620	11.7	1,280	19.6
4	174	4.70	760	16.9	1,070	6.3	1,550	15.3	1,280	27.3
5	197	5.77	770	25.1	1,100	8.4	1,590	18.0	1,320	31.4
Mean	188	5.52	764	20.3	1,084	6.3	1,604	15.8	1,310	24.4
S.D.	13	.53	11	3.1	11	1.4	35	2.5	28	6.4
C.V. (%)	7	10	1	15	1	22	2	16	2	26
Diet 8′:										
Subject 24:										
Period 6	125	4.10	580	17.6	790	2.9	1,240	7.5	960	28.1
7	150	5.18	540	18.5	830	4.6	1,330	15.7	960	11.8
8	138	4.80	580	27.0	800	13.1	1,250	20.5	930	30.6
Mean	138	4.69	567	21.0	807	6.9	1,273	14.6	950	23.5
S.D.	12	.55	23	5.2	21	5.4	49	6.6	17	10.2
C.V. (%)	9	12	4	25	3	79	4	45	2	43
Diet 8:										
Subject 25:										
Period 1	197	8.03	760	16.3	1,080	4.0	1,640	10.8	1,340	24.9
2	173	6.72	750	17.4	1,090	4.8	1,620	12.7	1,330	13.0
3	197	5.83	780	14.3	1,080	4.1	1,620	9.9	1,280	14.9
4	174	6.54	760	20.9	1,070	5.8	1,550	20.1	1,280	14.4
5	197	6.31	770	24.6	1,100	7.5	1,590	16.7	1,320	33.1
Mean	188	6.69	764	18.7	1,084	5.2	1,604	14.0	1,310	20.1
S.D.	13	.82	11	4.1	11	1.5	35	4.3	28	8.7
C.V. (%)	7	12	1	22	1	28	2	31	2	43

intake and urinary excretion—Continued

Sulfur containing—				Phenylalanine		Tyrosine		Valine		Arginine		Histidine		Glutamic acid		Period
Methionine		Cystine		Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	
Intake	Urine	Intake	Urine													
Mg.	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	
970	----	570	----	2,020	----	----	----	3,120	----	2,580	----	1,240	----	----	----	1
860	----	460	----	1,960	----	----	----	2,760	----	2,180	----	1,330	----	----	----	2
860	----	550	----	2,010	----	----	----	2,720	----	2,390	----	1,170	----	----	----	3
780	----	450	----	1,880	----	----	----	2,600	----	2,400	----	980	----	----	----	4
868	----	508	----	1,968	----	----	----	2,800	----	2,388	----	1,180	----	----	----	----
78	----	61	----	64	----	----	----	224	----	164	----	149	----	----	----	----
9	----	12	----	3	----	----	----	8	----	7	----	13	----	----	----	----
970	----	570	----	2,020	----	----	----	3,120	----	2,580	----	1,240	----	----	----	1
860	----	460	----	1,960	----	----	----	2,760	----	2,180	----	1,330	----	----	----	2
860	----	550	----	2,010	----	----	----	2,720	----	2,390	----	1,170	----	----	----	3
780	----	450	----	1,880	----	----	----	2,600	----	2,400	----	980	----	----	----	4
868	----	508	----	1,968	----	----	----	2,800	----	2,388	----	1,180	----	----	----	----
78	----	61	----	64	----	----	----	224	----	164	----	149	----	----	----	----
9	----	12	----	3	----	----	----	8	----	7	----	13	----	----	----	----
970	----	570	----	2,020	----	----	----	3,120	----	2,580	----	1,240	----	----	----	1
860	----	460	----	1,960	----	----	----	2,760	----	2,180	----	1,330	----	----	----	2
860	----	550	----	2,010	----	----	----	2,720	----	2,390	----	1,170	----	----	----	3
780	----	450	----	1,880	----	----	----	2,600	----	2,400	----	980	----	----	----	4
868	----	508	----	1,968	----	----	----	2,800	----	2,388	----	1,180	----	----	----	----
78	----	61	----	64	----	----	----	224	----	164	----	149	----	----	----	----
9	----	12	----	3	----	----	----	8	----	7	----	13	----	----	----	----
868	----	508	----	1,968	----	----	----	2,800	----	2,388	----	1,180	----	----	----	----
70	----	55	----	57	----	----	----	200	----	146	----	134	----	----	----	----
8	----	11	----	3	----	----	----	7	----	6	----	11	----	----	----	----
778	----	449	----	1,746	----	----	----	2,544	----	2,198	----	1,127	----	----	----	----
87	----	63	----	188	----	----	----	254	----	226	----	95	----	----	----	----
11	----	14	----	11	----	----	----	10	----	10	----	8	----	----	----	----
460	4.6	270	43.0	940	9.4	613	19.4	1,390	10.2	1,029	14.3	540	52.7	4,100	134.9	1
500	5.8	279	25.3	940	9.7	596	20.4	1,350	9.6	940	15.1	550	79.3	4,210	145.5	2
500	4.9	272	32.6	950	9.0	592	15.8	1,330	11.5	870	15.1	580	59.7	4,140	112.9	3
510	5.2	290	36.1	980	8.3	605	16.0	1,270	9.8	870	18.7	570	57.0	4,240	102.4	4
510	9.1	233	52.6	1,010	11.4	608	21.6	1,260	15.1	880	21.6	580	56.8	4,060	122.9	5
496	5.9	269	37.9	964	9.6	603	18.6	1,320	11.2	916	17.0	564	61.1	4,150	123.7	----
21	1.8	22	10.4	30	1.2	9	2.6	55	2.3	65	3.1	18	10.5	75	17.1	----
4	31	8	27	3	12	1	14	4	21	7	18	3	17	2	14	----
360	7.3	209	54.1	780	10.3	440	22.3	980	17.9	840	38.1	430	134.3	2,890	108.5	6
370	6.2	214	12.3	790	11.3	441	20.0	960	10.3	890	15.1	450	60.3	3,480	35.4	7
370	8.7	251	72.4	790	10.7	445	23.0	900	8.6	850	17.7	460	100.7	3,390	151.2	8
367	7.4	225	46.3	787	10.8	442	21.8	947	12.3	860	23.6	447	98.4	3,253	98.4	----
6	1.3	23	30.8	6	.5	3	1.6	42	5.0	26	12.6	15	37.1	318	58.6	----
2	18	10	67	1	5	1	7	4	41	3	53	3	38	10	60	----
460	2.9	270	26.8	940	5.3	613	11.3	1,390	7.3	1,020	12.2	540	33.2	4,100	87.6	1
500	4.5	279	28.7	940	2.2	596	11.3	1,350	9.8	940	11.5	550	40.8	4,210	130.5	2
500	4.0	272	30.2	950	7.0	592	11.5	1,330	9.4	870	13.9	580	37.1	4,140	90.6	3
510	5.4	290	33.0	980	8.4	605	17.9	1,270	10.1	870	16.5	570	37.6	4,240	104.3	4
510	9.7	233	42.4	1,010	11.0	608	21.2	1,260	14.5	880	16.4	580	34.5	4,060	143.3	5
496	5.3	269	32.2	964	6.8	603	14.6	1,320	10.2	916	14.1	564	36.6	4,150	111.3	----
21	2.6	22	6.1	30	3.3	9	4.6	55	2.6	65	2.3	18	3.0	75	24.7	----
4	49	8	19	3	49	1	32	4	25	7	16	3	8	2	22	----

TABLE 10.—AMINO ACIDS: *Mean daily*

Year, location, diet, subject, and period	Tryptophan		Threonine		Isoleucine		Leucine		Lysine	
	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine
1958										
EIGHT 6-DAY PERIODS										
VIRGINIA—Continued										
Diet 8′:										
Subject 25:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 6	125	4.94	580	18.4	790	5.9	1,240	16.6	960	24.4
7	150	4.25	540	17.9	830	5.0	1,330	18.9	960	21.8
8	138	3.46	580	17.0	800	3.8	1,250	14.6	930	23.4
Mean	138	4.22	567	17.8	807	4.9	1,273	16.5	950	23.2
S.D.	12	.74	23	.7	21	1.1	49	2.2	17	1.3
C.V. (%)	9	18	4	4	3	22	4	13	2	6
Diet 8:										
Subject 26:										
Period 1	197	9.85	760	26.7	1,680	6.8	1,640	18.6	1,340	32.4
2	172	9.40	740	22.6	1,080	6.9	1,610	17.9	1,320	14.2
3	194	9.04	770	19.3	1,050	10.3	1,580	22.3	1,240	24.7
4	163	8.12	700	19.8	1,000	6.4	1,430	17.6	1,200	31.8
5	192	8.73	740	27.4	1,060	8.6	1,530	20.2	1,280	35.7
Mean	184	9.03	742	23.2	1,054	7.8	1,558	19.3	1,276	27.8
S.D.	15	.66	27	3.8	33	1.6	82	1.9	57	8.6
C.V. (%)	8	7	4	16	3	21	5	10	4	31
Diet 8′:										
Subject 26:										
Period 6	121	8.52	560	18.5	770	5.8	1,190	13.4	940	27.2
7	144	8.43	490	19.9	770	4.8	1,240	20.6	900	26.0
8	135	8.72	550	29.8	760	5.6	1,190	22.1	900	29.4
Mean	133	8.56	533	22.7	767	5.4	1,207	18.7	913	27.5
S.D.	12	.15	38	6.2	6	.5	29	4.7	23	1.7
C.V. (%)	9	2	7	27	1	10	2	25	3	6
Diet 8:										
Subject 27:										
Period 1	197	8.01	760	26.4	1,080	6.8	1,640	16.5	1,340	28.9
2	173	7.41	750	22.1	1,090	5.3	1,620	17.3	1,330	13.1
3	197	6.89	780	19.9	1,080	10.2	1,620	17.4	1,280	24.1
4	174	6.06	760	27.0	1,070	7.6	1,550	23.4	1,280	28.4
5	197	6.24	770	25.1	1,100	8.9	1,590	21.4	1,320	35.4
Mean	188	6.92	764	24.1	1,084	7.8	1,604	19.2	1,310	26.0
S.D.	13	.81	11	3.0	11	1.9	35	3.0	28	8.3
C.V. (%)	7	12	1	12	1	24	2	16	2	32
Diet 8′:										
Subject 27:										
Period 6	125	6.01	580	17.2	790	7.4	1,240	15.2	960	29.8
7	150	5.69	540	20.3	830	6.4	1,330	22.5	960	26.5
8	138	5.50	580	21.4	800	4.2	1,250	18.7	930	24.8
Mean	138	5.73	567	19.6	807	6.0	1,273	18.8	950	27.0
S.D.	12	.26	23	2.2	21	1.6	49	3.7	17	2.5
C.V. (%)	9	5	4	11	3	27	4	20	2	9
Diet 8:										
Subject 28:										
Period 1	197	5.96	760	27.6	1,080	7.8	1,640	27.7	1,340	38.5
2	173	5.44	750	18.7	1,690	5.5	1,620	21.0	1,330	13.9
3	197	5.23	780	18.4	1,080	9.6	1,620	22.6	1,280	25.4
4	166	5.29	740	12.7	1,040	7.8	1,500	23.3	1,250	28.7
5	197	6.51	770	28.6	1,100	12.6	1,590	30.8	1,320	41.4
Mean	186	5.69	760	21.2	1,078	8.7	1,594	25.1	1,304	29.6
S.D.	15	.54	16	6.7	23	2.6	56	4.0	38	11.0
C.V. (%)	8	9	2	32	2	30	3	16	3	37
Diet 8′:										
Subject 28:										
Period 6	125	4.78	580	19.4	790	7.1	1,240	23.1	960	32.3
7	147	4.54	530	19.9	820	7.1	1,310	26.1	940	28.7
8	138	3.72	560	22.2	770	4.6	1,200	18.7	900	28.6
Mean	137	4.35	557	20.5	793	6.2	1,250	22.6	933	29.9
S.D.	11	.56	25	1.5	25	1.5	56	3.7	31	2.1
C.V. (%)	8	13	5	7	3	23	4	16	3	7

intake and urinary excretion—Continued

Sulfur containing—				Phenylalanine		Tyrosine		Valine		Arginine		Histidine		Glutamic acid		Period
Methionine		Cystine		Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	
Intake	Urine	Intake	Urine													
Mg.	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	
360	6.4	209	40.7	780	8.4	440	17.1	980	14.8	840	16.6	430	53.7	2,890	100.6	6.0
370	5.4	214	65.4	790	8.1	441	14.3	960	9.8	890	15.0	450	42.9	3,480	113.2	7
370	5.6	251	47.1	796	7.1	445	13.8	900	7.7	850	13.3	460	30.8	3,390	111.8	8
367	5.8	225	51.1	787	7.9	442	15.1	947	10.8	860	15.0	447	42.5	3,253	108.5	--------
6	.5	23	12.8	6	.7	3	1.8	42	3.6	26	1.7	15	11.5	318	6.9	--------
2	9	10	25	1	9	1	12	4	33	3	11	3	27	10	6	--------
460	6.7	270	38.3	940	11.6	613	24.8	1,390	11.2	1,020	19.4	540	73.5	4,100	155.4	1
500	5.8	279	34.0	930	12.3	596	21.6	1,340	11.3	930	15.3	550	79.7	4,210	148.4	2
490	6.5	272	30.8	930	10.3	592	15.3	1,300	14.9	850	23.0	570	58.6	4,140	108.5	3
480	6.0	--------	--------	920	10.5	549	25.2	1,180	9.8	820	15.8	550	73.3	4,240	130.4	4
490	9.4	233	31.9	970	10.8	578	27.1	1,210	15.0	850	18.6	570	69.3	4,060	76.8	5
484	6.9	264	33.8	938	11.1	586	22.8	1,284	12.4	894	18.4	556	70.9	4,150	123.9	--------
15	1.5	21	3.3	19	.8	24	4.6	88	2.4	81	3.1	13	7.8	75	32.0	--------
3	22	8	10	2	7	4	20	7	19	9	17	2	11	2	26	--------
350	5.8	209	32.6	750	8.9	423	22.7	950	14.4	820	14.0	420	75.0	2,890	122.8	6
340	7.5	190	42.1	730	10.2	441	21.5	880	11.4	850	16.0	430	125.8	3,480	129.9	7
360	6.6	246	61.3	750	11.7	445	28.6	850	11.6	830	19.9	450	104.7	3,390	108.0	8
350	6.6	215	45.3	743	10.3	436	24.3	893	12.5	833	16.6	433	101.8	3,253	120.2	--------
10	.9	28	14.6	12	1.4	12	3.8	51	1.7	15	3.0	15	25.5	3.18	11.2	--------
3	14	13	32	2	14	3	16	6	14	2	18	4	25	10	9	--------
460	5.4	270	76.3	940	10.2	613	19.4	1,390	12.6	1,020	21.1	540	77.4	4,100	156.5	1
500	5.6	279	33.1	940	11.5	596	18.1	1,350	12.4	940	17.1	550	99.5	4,210	165.4	2
500	8.6	272	35.3	950	9.9	592	15.8	1,330	14.8	870	24.5	580	52.5	4,140	92.0	3
510	6.7	290	43.4	980	13.1	605	24.5	1,270	11.4	870	13.4	570	61.0	4,240	130.7	4
510	10.8	233	42.4	1,010	10.5	608	23.7	1,260	17.6	880	23.1	580	75.1	4,060	149.0	5
496	7.4	269	46.1	964	11.0	603	20.3	1,320	13.8	916	19.8	564	73.1	4,150	138.7	--------
21	2.3	22	17.5	30	1.3	9	3.7	55	2.5	65	4.6	18	18.0	75	29.1	--------
4	31	8	38	3	12	1	18	4	18	7	23	3	25	2	21	--------
360	7.0	209	35.1	780	9.2	440	18.4	980	14.4	840	23.0	430	87.6	2,890	118.6	6
370	6.4	214	43.5	790	9.8	441	20.5	960	11.9	890	19.4	450	74.4	3,480	129.8	7
370	5.8	251	50.3	790	9.1	445	18.1	900	10.4	850	17.7	460	50.0	3,390	97.2	8
367	6.4	225	43.0	787	9.4	442	19.0	947	12.2	860	20.0	447	70.7	3,253	115.2	--------
6	.6	23	7.6	6	.4	3	1.3	42	2.0	26	2.7	15	19.1	318	16.6	--------
2	9	10	18	1	4	1	7	4	16	3	14	3	27	10	14	--------
460	5.9	270	52.2	940	14.2	613	20.2	1,390	21.2	1,020	24.0	540	63.3	4,100	155.3	1
500	4.4	279	31.2	940	11.3	596	14.5	1,350	13.6	940	21.6	550	66.9	4,210	123.9	2
500	6.4	272	28.4	950	11.8	592	13.8	1,330	17.1	870	21.4	580	48.3	4,140	86.4	3
500	5.7	290	40.0	950	8.5	605	17.1	1,230	11.0	840	19.7	560	64.9	4,240	118.2	4
510	10.7	233	69.3	1,010	13.6	608	21.3	1,260	22.0	880	25.9	580	70.8	4,060	96.9	5
494	6.6	269	44.2	958	11.9	603	17.4	1,312	17.0	910	22.5	562	62.8	4,150	116.1	--------
20	2.4	22	16.8	30	2.2	9	3.3	66	4.7	71	2.4	18	8.6	75	26.7	--------
4	36	8	38	3	18	1	19	5	28	8	11	3	14	2	23	--------
360	8.4	209	36.2	780	9.8	440	18.0	980	20.0	840	20.8	430	60.7	2,890	118.4	6
360	7.4	214	47.8	780	11.1	431	15.8	940	12.3	870	20.0	450	120.5	3,480	126.8	7
360	6.2	229	73.3	760	15.3	414	16.5	860	15.5	830	16.6	--------	--------	3,390	158.7	8
360	7.3	217	52.4	773	12.1	428	16.8	927	15.9	847	19.1	440	90.6	3,253	134.6	--------
0	1.1	10	19.0	12	2.9	13	1.1	61	3.9	21	2.2	14	42.3	318	21.3	--------
0	15	5	36	1	24	3	7	7	25	2	12	3	47	10	16	--------

TABLE 10.—AMINO ACIDS: *Mean daily*

Year, location, diet, subject, and period	Tryptophan		Threonine		Isoleucine		Leucine		Lysine	
	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine
1958										
EIGHT 6-DAY PERIODS										
VIRGINIA—Continued										
Diet 8:										
Subject 29:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	197	8.46	760	31.3	1,080	8.7	1,640	21.9	1,340	37.2
2	173	8.75	750	26.5	1,090	6.5	1,620	17.6	1,330	13.4
3	197	7.14	780	18.4	1,080	5.7	1,620	13.3	1,280	18.1
4	174	8.55	760	34.9	1,070	9.5	1,550	29.6	1,280	16.2
5	197	6.83	770	23.7	1,100	8.3	1,590	16.8	1,320	28.2
Mean	188	7.95	764	27.0	1,084	7.7	1,604	19.8	1,310	22.6
S.D.	13	.89	11	6.4	11	1.6	35	6.3	28	9.9
C.V. (%)	7	11	1	24	1	21	2	32	2	44
Diet 8′:										
Subject 29:										
Period 6	125	6.04	580	18.3	790	7.3	1,240	18.0	960	27.5
7	150	6.30	540	21.2	830	6.7	1,330	21.8	960	25.5
8	138	5.89	580	24.5	800	7.7	1,250	18.7	930	15.2
Mean	138	6.08	567	21.3	807	7.2	1,273	19.5	950	22.7
S.D.	12	.21	23	3.1	21	.5	49	2.0	17	6.6
C.V. (%)	9	3	4	15	3	7	4	10	2	29
Diet 8:										
Subject 30:										
Period 1	197	11.01	760	33.8	1,080	6.9	1,640	17.9	1,340	31.8
2	173	11.26	750	29.6	1,090	5.2	1,620	16.1	1,330	12.8
3	197	11.43	780	24.9	1,080	7.1	1,620	16.5	1,280	27.6
4	174	11.86	760	23.7	1,070	3.3	1,550	15.2	1,280	9.6
5	197	13.35	770	32.6	1,100	6.4	1,590	15.1	1,320	30.2
Mean	188	11.78	764	28.9	1,084	5.8	1,604	16.2	1,310	22.4
S.D.	13	.93	11	4.5	11	1.6	35	1.1	28	10.4
C.V. (%)	7	8	1	16	1	27	2	7	2	46
Diet 8′:										
Subject 30:										
Period 6	124	9.23	580	24.5	790	6.1	1,240	13.9	960	30.0
7	150	6.75	540	21.0	830	6.1	1,330	23.1	960	24.9
8	138	8.09	580	32.3	800	7.1	1,250	21.4	930	17.8
Mean	137	8.02	567	25.9	807	6.4	1,273	19.5	950	24.2
S.D.	13	1.24	23	5.8	21	.6	49	4.9	17	6.1
C.V. (%)	9	15	4	22	3	9	4	25	2	25
Diet 8:										
Subject 31:										
Period 1	197	4.00	760	28.1	1,080	7.3	1,640	15.9	1,340	35.7
2	173	5.29	750	22.8	1,090	5.9	1,620	15.5	1,330	12.4
3	197	5.29	780	20.2	1,080	5.8	1,620	17.3	1,280	32.0
4	174	5.58	760	26.0	1,070	6.8	1,550	22.0	1,280	15.4
5	197	4.39	770	23.8	1,100	7.7	1,590	17.1	1,320	36.2
Mean	188	4.91	764	24.2	1,084	6.7	1,604	17.6	1,310	26.3
S.D.	13	.68	11	3.0	11	.8	35	2.6	28	11.5
C.V. (%)	7	14	1	12	1	12	2	15	2	44
Diet 8′:										
Subject 31:										
Period 6	123	4.56	570	23.4	780	9.4	1,230	16.8	950	34.5
7	150	4.31	540	20.3	830	6.4	1,330	21.8	960	27.6
8	138	4.09	580	29.4	800	7.3	1,250	20.6	930	18.7
Mean	137	4.32	563	24.4	803	7.7	1,270	19.7	947	26.9
S.D.	14	.24	21	4.6	25	1.6	53	2.6	15	7.9
C.V. (%)	10	6	4	19	3	20	4	13	2	29
Diet 8:										
Subject 32:										
Period 1	197	7.88	760	24.4	1,080	6.5	1,640	12.0	1,340	32.7
2	173	7.23	750	39.2	1,090	8.8	1,620	25.7	1,330	45.2
3	197	6.77	780	22.8	1,080	6.1	1,620	20.0	1,280	32.3
4	167	10.50	720	26.5	1,020	7.8	1,470	23.0	1,200	16.8
5	197	9.13	770	21.7	1,100	8.5	1,590	16.1	1,320	34.5
Mean	186	8.30	756	26.9	1,074	7.6	1,588	19.4	1,294	32.3
S.D.	15	1.52	23	7.1	31	1.2	68	5.4	57	10.1
C.V. (%)	8	18	3	26	3	16	4	28	4	31

intake and urinary excretion—Continued

Sulfur containing—				Phenylalanine		Tyrosine		Valine		Arginine		Histidine		Glutamic acid		Period
Methionine		Cystine		Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	
Intake	Urine	Intake	Urine													
Mg.	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	
460	8.0	270	70.8	940	12.9	613	20.9	1,390	13.7	1,020	23.7	540	84.2	4,100	207.4	1
500	4.1	279	40.2	940	13.5	596	20.1	1,350	15.1	940	15.4	550	98.8	4,210	245.9	2
500	4.1	272	34.7	950	8.5	592	15.0	1,330	13.5	870	15.8	580	48.6	4,140	116.6	3
510	9.6	290	64.2	980	13.0	605	23.5	1,270	13.9	870	23.1	570	155.9	4,240	194.4	4
510	9.4	233	51.8	1,010	9.0	608	20.5	1,260	13.4	880	17.4	580	59.3	4,060	69.4	5
496	7.0	269	52.3	964	11.4	603	20.0	1,320	13.9	916	19.1	564	89.4	4,150	166.7	--------
21	2.8	22	15.3	30	2.4	9	3.1	55	.7	65	4.0	18	42.2	75	71.9	--------
4	40	8	29	3	21	1	16	4	5	7	21	3	47	2	43	--------
360	7.1	209	35.2	780	4.9	440	17.9	980	16.9	840	16.7	430	50.3	2,890	99.7	6
370	7.3	214	62.4	790	11.8	441	19.2	960	10.5	890	15.8	450	161.3	3,480	155.2	7
370	5.9	251	78.3	790	9.7	445	20.7	900	21.5	850	17.1	460	94.2	3,390	96.3	8
367	6.8	225	58.6	787	8.8	442	19.3	947	16.3	860	16.5	447	101.9	3,253	117.1	--------
6	.8	23	21.8	6	3.5	3	1.4	42	5.5	26	.7	15	55.9	318	33.1	--------
2	12	10	37	1	40	1	7	4	34	3	4	3	55	10	28	--------
460	6.5	270	39.6	940	11.3	613	23.9	1,390	10.7	1,020	21.3	540	105.5	4,100	195.4	1
500	3.9	279	29.6	940	11.0	596	22.3	1,350	13.2	940	13.6	550	132.1	4,210	147.7	2
500	5.0	272	29.5	950	10.5	592	16.9	1,330	11.8	870	13.2	580	72.3	4,140	155.1	3
510	4.7	290	38.5	980	7.4	605	18.2	1,270	6.7	870	9.8	570	114.3	4,240	119.3	4
510	8.4	233	43.1	1,010	10.2	608	24.9	1,260	11.4	880	17.9	580	104.0	4,060	154.4	5
496	5.7	269	36.1	964	10.1	603	21.2	1,320	10.8	916	15.2	564	105.6	4,150	154.4	--------
21	1.8	22	6.2	30	1.6	9	3.5	55	2.4	65	4.5	18	21.7	75	27.2	--------
4	32	8	17	3	16	1	17	4	22	7	30	3	21	2	18	--------
360	5.8	209	33.4	780	9.8	440	20.2	980	12.4	840	21.5	430	166.9	2,890	179.5	6
370	7.1	214	30.4	790	9.0	441	22.7	960	9.2	890	17.7	450	61.1	3,480	170.6	7
370	8.3	251	37.7	790	10.1	445	19.8	900	10.9	850	20.6	460	103.7	3,390	168.3	8
367	7.1	225	33.8	787	9.6	442	20.9	947	10.8	860	19.9	447	110.6	3,253	172.8	--------
6	1.3	23	3.7	6	.6	3	1.6	42	1.6	26	2.0	15	53.2	318	5.9	--------
2	18	10	11	1	6	1	8	4	15	3	10	3	48	10	3	--------
460	7.6	270	27.8	940	9.0	613	19.6	1,390	10.8	1,020	21.5	540	74.9	4,100	165.1	1
500	4.0	279	28.8	940	8.7	596	16.8	1,350	14.6	940	14.6	550	65.1	4,210	159.0	2
500	5.7	272	29.8	950	10.3	592	17.6	1,330	11.2	870	18.9	580	63.2	4,140	154.5	3
510	5.8	290	36.0	980	9.4	605	22.1	1,270	11.8	870	10.6	570	98.9	4,240	138.5	4
510	6.2	233	37.9	1,010	8.2	608	17.9	1,260	8.4	880	18.5	580	69.0	4,060	103.5	5
496	5.9	269	32.1	964	9.1	603	18.8	1,320	11.4	916	16.8	564	74.2	4,150	144.1	--------
21	1.3	22	4.6	30	.8	9	2.1	55	2.2	65	4.3	18	14.5	75	24.8	--------
4	22	8	14	3	9	1	11	4	19	7	26	3	20	2	17	--------
360	6.9	209	36.7	770	5.1	440	20.4	970	13.3	830	26.1	430	59.1	2,890	152.8	6
370	7.3	214	47.5	790	8.5	441	16.6	960	9.3	890	18.8	450	70.4	3,480	128.1	7
370	6.8	251	62.5	790	9.8	445	21.9	900	11.2	850	23.0	460	33.1	3,390	166.0	8
367	7.0	225	48.9	783	7.8	442	19.6	943	11.3	857	22.6	447	54.2	3,253	149.0	--------
6	.3	23	13.0	12	2.4	3	2.7	38	2.0	31	3.7	15	19.1	318	19.2	--------
2	4	10	27	1	31	1	14	4	18	4	16	3	35	10	13	--------
460	6.8	270	47.3	940	9.8	613	19.6	1,390	9.1	1,020	18.9	540	77.9	4,100	173.6	1
500	9.4	279	33.7	940	14.6	596	33.2	1,350	11.4	940	23.3	550	113.5	4,210	330.4	2
500	5.6	272	37.7	950	13.1	592	24.0	1,330	12.6	870	20.5	580	110.3	4,140	160.8	3
490	7.5	275	42.0	940	11.5	566	26.5	1,210	12.9	810	19.5	560	142.6	4,240	147.6	4
510	6.8	233	44.2	1,010	11.0	608	21.2	1,260	11.2	880	18.8	580	75.9	4,060	129.2	5
492	7.2	266	41.0	956	12.0	595	25.0	1,308	11.4	904	20.2	562	104.0	4,150	188.3	--------
19	1.4	19	5.4	30	1.9	18	5.3	72	1.5	80	1.9	18	27.8	75	81.1	--------
4	19	7	13	3	16	3	21	6	13	9	9	3	27	2	43	--------

TABLE 10.—AMINO ACIDS: *Mean daily*

Year, location, diet, subject, and period	Tryptophan		Threonine		Isoleucine		Leucine		Lysiue	
	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine
1958										
EIGHT 6-DAY PERIODS										
VIRGINIA—Continued										
Diet 8′:										
Subject 32:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 6	125	7.54	580	17.9	790	9.3	1,240	19.3	960	29.3
7	150	4.97	540	17.5	830	5.5	1,330	14.3	960	26.0
8	138	5.99	580	22.3	800	5.3	1,250	14.2	930	14.8
Mean	138	6.17	567	19.2	807	6.7	1,273	15.9	950	23.4
S.D	12	1.29	23	2.7	21	2.3	49	2.9	17	7.6
C.V. (%)	9	21	4	14	3	34	4	18	2	32
Diet 8:										
Subject 33:										
Period 1	197	9.98	760	30.6	1,080	12.1	1,640	23.3	1,340	36.2
2	173	8.53	750	35.7	1,090	7.8	1,620	22.9	1,330	35.2
3	197	8.53	780	25.2	1,080	7.9	1,620	19.8	1,280	32.2
4	174	7.15	760	24.7	1,070	7.3	1,550	24.1	1,280	12.4
5	197	8.46	770	25.4	1,100	10.1	1,590	19.9	1,320	32.5
Mean	188	8.53	764	28.3	1,084	9.0	1,604	22.0	1,310	29.7
S.D	13	1.00	11	4.8	11	2.0	35	2.0	28	9.8
C.V. (%)	7	12	1	17	1	22	2	9	2	33
Diet 8′:										
Subject 33:										
Period 6	125	7.47	580	30.4	790	8.2	1,240	26.3	960	28.1
7	150	6.83	540	24.9	830	7.7	1,330	19.3	960	31.7
8	138	7.46	580	28.7	800	13.0	1,250	24.8	930	17.6
Mean	138	7.25	567	28.0	807	9.6	1,273	23.5	950	25.8
S.D	12	.37	23	2.8	21	2.9	49	3.7	17	7.3
C.V. (%)	9	5	4	10	3	30	4	16	2	28
Diet 8:										
Subject 34:										
Period 1	197	8.54	760	27.6	1,080	9.7	1,640	18.3	1,340	26.5
2	173	6.43	750	30.8	1,090	6.8	1,620	17.2	1,330	37.3
3	197	5.87	780	12.9	1,080	5.7	1,620	11.8	1,280	19.7
4	174	6.13	760	27.3	1,070	6.6	1,550	22.7	1,280	14.6
5	197	7.46	770	26.5	1,100	6.8	1,590	17.6	1,320	39.4
Mean	188	6.89	764	25.0	1,084	7.1	1,604	17.5	1,310	27.5
S.D	13	1.10	11	7.0	11	1.5	35	3.9	28	10.8
C.V. (%)	7	16	1	28	1	21	2	22	2	39
Diet 8′:										
Subject 34:										
Period 6	125	5.76	580	20.5	790	6.2	1,240	13.0	960	33.2
7	150	5.76	540	16.3	830	7.0	1,330	16.3	960	31.9
8	138	5.10	580	23.1	800	6.2	1,250	18.6	930	14.6
Mean	138	5.54	567	20.0	807	6.4	1,273	16.0	950	26.6
S.D	12	.38	23	3.4	21	.4	49	2.8	17	10.4
C.V. (%)	9	7	4	17	3	7	4	18	2	39
Diet 8:										
Subject 35:										
Period 1	197	10.22	760	28.3	1,080	7.8	1,640	21.1	1,340	26.1
2	173	7.42	750	31.7	1,090	8.1	1,620	21.1	1,330	33.9
3	240	8.91	930	27.0	1,290	7.0	1,940	23.8	1,580	32.5
4	217	9.92	910	24.8	1,280	5.7	1,870	21.6	1,580	13.3
5	240	6.08	920	17.6	1,310	7.5	1,910	15.8	1,620	25.3
Mean	213	8.51	854	25.9	1,210	7.2	1,796	20.7	1,490	26.2
S.D	29	1.74	91	5.3	115	1.0	154	2.9	142	8.2
C.V. (%)	14	20	11	20	9	13	9	14	10	31
Diet 8′:										
Subject 35:										
Period 6	125	5.38	580	27.3	790	17.8	1,240	26.9	960	40.5
7	201	7.85	690	22.2	1,070	7.6	1,710	21.5	1,300	32.3
8	232	5.82	880	32.8	1,250	7.4	1,950	26.6	1,570	18.8
Mean	186	6.35	717	27.4	1,037	11.0	1,633	25.0	1,277	30.5
S.D	55	1.32	152	5.3	232	5.9	361	3.0	306	11.0
C.V. (%)	30	21	21	19	22	54	22	12	24	36
Diet 8 (12 subjects):										
Mean	189	7.56	769	24.5	1,091	7.2	1,614	18.9	1,320	26.2
S.D	16	2.03	38	5.6	50	1.8	80	4.4	72	9.3
C.V. (%)	8	27	5	23	5	25	5	23	5	35
Diet 8′ (12 subjects):										
Mean	141	5.94	575	22.3	821	7.0	1,296	19.2	972	25.9
S.D	21	1.53	60	4.7	88	2.8	141	4.4	120	6.4
C.V. (%)	15	26	11	21	11	40	11	23	12	25

intake and urinary excretion—Continued

Sulfur containing—				Phenylalanine		Tyrosine		Valine		Arginine		Histidine		Glutamic acid		Period
Methionine		Cystine		Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urine	Intake	Urino	
Intake	Urine	Intake	Urine													
Mg.	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	
360	7.3	209	43.3	780	7.8	440	21.7	980	18.7	840	16.5	430	74.9	2,890	156.4	6
370	6.7	214	39.3	790	8.7	441	18.2	960	9.3	890	15.4	450	49.9	3,480	107.4	7
370	4.5	251	53.4	790	7.6	445	24.1	900	10.5	850	16.3	460	65.5	3,390	142.0	8
367	6.2	225	45.3	787	8.0	442	21.3	947	12.8	860	16.1	447	63.4	3,253	135.3	--------
6	1.5	23	7.3	6	.6	3	3.0	42	5.1	26	.6	15	12.6	318	25.2	--------
2	24	10	16	1	8	1	14	4	40	3	4	3	20	10	19	--------
460	9.0	270	54.7	940	13.0	613	25.0	1,390	17.0	1,020	32.8	540	83.9	4,100	173.7	1
500	8.2	279	31.5	940	13.7	596	28.9	1,350	13.5	940	18.0	550	97.5	4,210	180.6	2
500	6.3	272	34.4	950	11.7	592	17.8	1,330	12.8	870	16.3	580	71.5	4,140	174.1	3
510	6.5	290	28.1	980	11.6	605	24.5	1,270	11.5	870	20.8	570	84.5	4,240	151.2	4
510	8.9	233	27.0	1,010	12.4	608	23.4	1,260	13.1	880	21.8	580	101.8	4,060	140.3	5
496	7.8	269	35.1	964	12.5	603	23.9	1,320	13.6	916	21.9	564	87.8	4,150	164.0	--------
21	1.3	22	11.3	30	.9	9	4.0	55	2.1	65	6.5	18	12.1	75	17.3	--------
4	17	8	32	3	7	1	17	4	15	7	30	3	14	2	11	--------
360	9.7	209	42.4	780	9.7	440	30.7	980	24.3	840	22.2	430	90.7	2,890	95.4	6
370	7.6	214	50.5	790	13.0	441	24.5	960	12.5	890	21.0	--------	--------	3,480	145.3	7
370	7.8	251	25.7	790	11.4	445	21.7	900	9.4	850	17.8	460	48.1	3,390	169.6	8
367	8.4	225	39.5	787	11.4	442	25.6	947	15.4	860	20.3	445	69.4	3,253	136.8	--------
6	1.2	23	12.6	6	1.7	3	4.6	42	7.9	26	2.3	21	30.1	318	37.8	--------
2	14	10	32	1	15	1	18	4	51	3	11	5	43	10	28	--------
460	6.0	270	64.2	940	13.4	613	23.5	1,390	20.9	1,020	19.2	540	64.9	4,100	153.8	1
500	6.8	279	33.2	940	11.3	596	31.4	1,350	12.6	940	19.1	550	95.9	4,210	202.8	2
500	3.9	272	36.7	950	8.7	592	11.4	1,330	11.1	870	13.2	580	31.4	4,140	59.8	3
510	6.0	290	40.2	980	11.1	605	25.2	1,270	12.5	870	17.4	570	42.5	4,240	150.6	4
510	6.6	233	45.1	1,010	10.5	608	24.8	1,260	13.4	880	19.2	580	92.6	4,060	131.8	5
496	5.9	269	43.9	964	11.0	603	23.3	1,320	14.1	916	17.6	564	65.5	4,150	139.8	--------
21	1.2	22	12.2	30	1.7	9	7.3	55	3.9	65	2.6	18	28.9	75	51.8	--------
4	20	8	28	3	15	1	31	4	28	7	15	3	44	2	37	--------
360	10.8	209	40.7	780	6.5	440	24.6	980	12.6	840	24.3	430	83.4	2,890	155.2	6
370	7.0	214	74.9	790	9.3	441	22.9	960	12.1	890	20.4	450	41.3	3,480	164.0	7
370	7.9	251	86.2	790	7.3	445	20.1	900	6.7	850	18.3	460	125.2	3,390	161.4	8
367	8.6	225	67.3	787	7.7	442	22.5	947	10.5	860	21.0	447	83.3	3,253	160.2	--------
6	2.0	23	23.7	6	1.4	3	2.3	42	3.3	26	3.0	15	42.0	318	4.5	--------
2	23	10	35	1	18	1	10	4	31	3	14	3	50	10	3	--------
460	7.1	270	50.8	940	13.7	613	22.0	1,390	15.7	1,020	20.5	540	81.6	4,100	268.0	1
500	7.6	279	40.4	940	12.3	596	26.9	1,350	13.5	940	15.8	550	73.3	4,210	231.1	2
600	6.5	306	36.6	1,120	13.8	747	24.2	1,610	14.5	970	19.6	680	70.1	4,880	152.8	3
600	5.9	324	34.5	1,150	11.8	760	20.0	1,550	12.4	970	20.7	670	90.0	4,980	143.6	4
610	4.9	267	53.4	1,180	8.8	763	15.0	1,540	11.0	990	14.2	680	69.1	4,790	89.3	5
554	6.4	289	43.1	1,066	12.1	696	21.6	1,488	13.4	978	18.2	624	76.8	4,592	177.0	--------
69	1.1	25	8.5	117	2.0	84	4.5	112	1.8	30	3.0	72	8.9	406	71.8	--------
12	17	9	20	11	17	12	21	8	13	3	16	12	12	9	41	--------
360	9.2	209	48.0	780	10.7	440	26.8	980	23.4	840	22.5	430	65.2	2,890	162.1	6
480	6.9	254	48.8	1,000	13.3	606	20.6	1,240	13.6	1,030	19.3	570	56.2	4,260	144.7	7
580	8.3	325	69.6	1,160	11.4	765	29.9	1,470	12.0	1,100	20.4	680	100.6	4,900	201.1	8
473	8.1	263	55.5	980	11.8	604	25.8	1,230	16.3	990	20.7	560	74.0	4,017	169.3	--------
110	1.2	58	12.2	191	1.3	162	4.7	245	6.2	134	1.6	125	23.5	1,027	28.9	--------
23	15	22	22	19	11	27	18	20	38	14	8	22	32	26	17	--------
499	6.5	270	39.9	969	10.7	608	20.6	1,329	12.8	918	18.4	568	75.7	4,187	145.6	--------
30	1.8	20	11.6	50	2.3	36	4.8	78	3.0	63	4.1	30	26.0	175	47.5	--------
6	28	8	29	5	21	6	23	6	23	7	22	5	34	4	33	--------
374	7.1	226	48.9	798	9.6	454	21.0	964	13.1	867	19.3	455	80.1	3,317	134.8	--------
41	1.3	26	16.3	73	2.1	60	3.9	107	4.3	54	4.4	47	34.8	412	32.4	--------
11	18	11	33	9	22	13	19	11	33	6	23	10	43	12	24	--------

TABLE 11.—BLOOD: *Electrophoretic distribution of serum proteins for selected preadolescent girls in the 1958 metabolic study*

[Virginia; three 6-day periods; period 1, diet 8; periods 6 and 8, diet 8′]

Subject and period	Albumin	Globulins			
		a_1	a_2	B	Y
Subject 24:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Period 1	63. 9	3. 06	13. 20	8. 66	11. 20
6	64. 5	3. 08	12. 20	9. 27	10. 98
8	65. 4	3. 51	11. 02	10. 02	10. 01
Subject 25:					
Period 1	59. 9	3. 08	7. 40	11. 10	18. 50
6	65. 0	3. 07	8. 38	10. 25	13. 40
8	65. 0	2. 15	7. 76	10. 80	11. 64
Subject 27:					
Period 1	64. 0	2. 68	9. 41	9. 41	14. 35
6	66. 5	1. 85	8. 98	9. 28	13. 30
8	69. 5	2. 28	8. 75	7. 55	11. 80
Subject 28:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Period 1	65. 7	2. 75	9. 83	10. 61	11. 00
6	69. 5	2. 28	8. 36	10. 65	9. 50
8	66. 5	3. 25	8. 15	11. 50	10. 10
Subject 29:					
Period 1	66. 0	3. 17	8. 71	8. 71	13. 50
6	61. 3	3. 55	8. 90	9. 78	16. 50
8	66. 3	2. 44	8. 55	8. 55	14. 20
5 subjects:					
Mean	65. 3	2. 81	9. 31	9. 74	12. 67
S.D	2. 5	. 51	1. 63	1. 10	2. 52
C.V. (%)	4	18	18	11	20

TABLE 12.—BLOOD: *Values for blood serum vitamin A and carotene for preadolescent girls in 2 metabolic studies*

[Virginia; 1956, 1958]

Year, diet, subject, and period	Vitamin A	Carotene
1956		
FOURTEEN 4-DAY PERIODS		
Diet 2:		
Subject 12:	*Mcg./100 ml.*	*Mcg./100 ml.*
Period 1	33. 3	113. 0
2	50. 0	137. 2
3	54. 3	153. 5
4	44. 2	150. 7
5	43. 4	155. 5
6	41. 0	141. 0
7	42. 3	141. 0
8	21. 8	120. 7
9	29. 5	109. 1
10	47. 5	128. 0
11	48. 8	142. 0
12	57. 0	159. 8
13	51. 3	172. 6
14	48. 1	164. 9
Mean	43. 8	142. 1
S.D	9. 8	19. 1
C.V. (%)	22	13
1956		
FOURTEEN 4-DAY PERIODS		
Diet 2:		
Subject 13:	*Mcg./100 ml.*	*Mcg./100 ml.*
Period 1	31. 4	84. 0
2	52. 6	106. 2
3	47. 4	121. 7
4	44. 9	144. 9
5	44. 9	155. 1
6	43. 6	149. 7
7	43. 0	154. 0
8	40. 4	159. 9
9	47. 4	157. 8
10	46. 8	169. 4
11	47. 4	174. 8
12	44. 7	170. 7
13	47. 3	173. 3
14	45. 4	183. 9
Mean	44. 8	150. 4
S.D	4. 8	28. 3
C.V. (%)	11	19

Table 12.—BLOOD: *Values for blood serum vitamin A and carotene for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Vitamin A	Carotene
1956		
FOURTEEN 4-DAY PERIODS		
Diet 2:		
Subject 14:	*Mcg./100 ml.*	*Mcg./100 ml.*
Period 1	39. 8	251. 2
2	66. 7	255. 0
3	42. 3	265. 6
4	50. 0	275. 7
5	43. 6	245. 3
6	51. 3	255. 0
7	56. 4	260. 2
8	48. 1	252. 7
9	43. 6	241. 0
10	44. 2	238. 1
11	40. 2	245. 2
12	55. 2	245. 2
13	51. 9	253. 5
14	49. 0	260. 4
Mean	48. 7	253. 2
S.D	7. 4	10. 1
C.V. (%)	15	4
3 subjects on diet 2:		
Mean	45. 8	181. 9
S.D	7. 7	54. 9
C.V. (%)	17	30
Diet 3:		
Subject 15:		
Period 1	28. 2	106. 3
2	53. 8	121. 7
3	51. 3	146. 8
4	46. 8	165. 2
5	55. 0	174. 0
6	52. 6	195. 0
7	56. 6	207. 6
8	56. 4	217. 8
9	57. 7	213. 0
10	53. 2	226. 0
11	55. 3	233. 0
12	70. 0	247. 9
13	61. 2	257. 1
14	61. 4	251. 3
Mean	54. 2	197. 3
S.D	9. 3	48. 1
C.V.(%)	17	24
1956		
FOURTEEN 4-DAY PERIODS		
Diet 3:		
Subject 16:	*Mcg./100 ml.*	*Mcg./100 ml.*
Period 1	37. 6	158. 6
2	47. 4	180. 6
3	46. 1	203. 8
4	53. 8	217. 3
5	51. 3	230. 8
6	52. 6	247. 1
7	55. 5	233. 7
8	51. 3	248. 7
9	46. 1	255. 2
10	54. 5	249. 1
11	52. 0	244. 4
12	59. 5	261. 8
13	56. 1	265. 8
14	43. 6	270. 9
Mean	50. 5	233. 4
S.D	5. 8	32. 9
C.V. (%)	11	14
Diet 3:		
Subject 17:		
Period 1	----------	----------
2	----------	----------
3	----------	----------
4	----------	----------
5	50. 2	158. 5
6	57. 7	209. 6
7	51. 3	211. 0
8	53. 2	210. 6
9	55. 1	203. 8
10	50. 7	209. 8
11	49. 2	208. 9
12	68. 2	222. 2
13	48. 7	227. 5
14	52. 0	233. 8
Mean	53. 6	209. 6
S.D	5. 8	20. 3
C.V. (%)	11	10
3 subjects on diet 3:		
Mean	52. 7	213. 8
S.D	7. 3	39. 3
C.V. (%)	14	18

TABLE 12.—BLOOD: *Values for blood serum vitamin A and carotene for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Vitamin A	Carotene
1956		
FOURTEEN 4-DAY PERIODS		
Diet 4:		
Subject 18:	*Mcg./100 ml.*	*Mcg./100 ml.*
Period 1	76.9	194.1
2	---	---
3	75.2	184.6
4	56.4	178.7
5	---	---
6	71.8	169.0
7	69.8	168.0
8	68.6	164.2
9	76.3	163.3
10	76.2	161.8
11	79.5	159.4
12	77.4	177.4
13	79.6	181.9
14	71.8	177.3
Mean	73.3	173.3
S.D.	6.4	10.7
C.V. (%)	9	6
Diet 4:		
Subject 19:		
Period 1	56.0	141.3
2	44.9	139.0
3	46.1	155.5
4	50.0	160.3
5	52.6	160.3
6	46.0	156.0
7	45.5	155.5
8	46.1	159.4
9	56.7	159.4
10	46.9	147.3
11	35.6	145.0
12	49.4	156.0
13	48.1	149.0
14	44.2	153.1
Mean	47.7	152.6
S.D.	5.3	7.1
C.V. (%)	11	5
Diet 4:		
Subject 20:		
Period 1	46.1	86.9
2	33.3	101.4
3	53.2	124.6
4	39.8	147.3
5	60.2	135.2
6	42.3	127.5
7	35.9	120.2
8	39.9	114.8
9	38.5	76.3
10	48.7	110.1
11	38.5	122.2
12	48.0	126.1
13	40.6	121.3
14	42.3	140.9
Diet 4:		
Subject 20:	*Mcg./100 ml.*	*Mcg./100 ml.*
Mean	43.4	118.2
S.D.	7.2	19.5
C.V. (%)	17	17
3 subjects on diet 4:		
Mean	53.9	146.8
S.D.	14.4	26.4
C.V. (%)	27	18
Diet 5:		
Subject 21:		
Period 1	44.4	138.5
2	35.9	143.4
3	43.0	162.8
4	41.0	165.2
5	39.7	169.0
6	43.2	174.2
7	43.6	158.9
8	46.5	184.5
9	46.5	179.7
10	44.2	184.0
11	43.6	192.8
12	47.2	198.4
13	45.5	207.2
14	48.7	211.5
Mean	43.8	176.4
S.D.	3.3	22.0
C.V. (%)	8	12
Diet 5:		
Subject 22:		
Period 1	52.6	184.5
2	43.3	182.8
3	47.4	188.3
4	52.4	187.4
5	55.1	193.6
6	55.1	189.3
7	50.7	191.2
8	60.2	197.0
9	53.8	190.0
10	52.6	197.8
11	58.6	218.9
12	59.0	207.7
13	49.0	213.6
14	58.0	214.6
Mean	53.4	196.9
S.D.	4.8	12.0
C.V. (%)	9	6
Diet 5:		
Subject 23:		
Period 1	48.0	120.3
2	49.4	139.1
3	51.6	176.0
4	60.2	163.2
5	52.6	156.5
6	50.0	166.1
7	50.6	167.6

TABLE 12.—BLOOD: *Values for blood serum vitamin A and carotene for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Vitamin A	Carotene
1956		
FOURTEEN 4-DAY PERIODS		
Diet 5:		
Subject 23:	*Mcg./100 ml.*	*Mcg./100 ml.*
Period 8	47. 4	174. 8
9	50. 0	159. 4
10	50. 1	173. 1
11	51. 9	170. 0
12	56. 8	176. 8
13	50. 7	180. 4
14	65. 4	181. 6
Mean	52. 5	164. 6
S.D	5. 0	17. 0
C.V. (%)	10	10
3 subjects on diet 5:		
Mean	49. 9	179. 3
S.D	6. 2	21. 7
C.V. (%)	12	12
12 subjects in 1956:		
Mean	50. 5	180. 0
S.D	9. 9	44. 2
C.V. (%)	20	25
1958		
EIGHT 6-DAY PERIODS		
Diets 8 and 8′:[1]		
Subject 24:		
Period 1	35. 6	142. 6
2	31. 8	125. 9
3	40. 8	147. 4
4	34. 2	131. 4
5	38. 3	142. 5
6	33. 4	128. 4
7	33. 4	120. 4
8	27. 7	125. 3
Mean	34. 4	133. 0
S.D	4. 0	9. 9
C.V. (%)	12	7
Diets 8 and 8′:[1]		
Subject 25:		
Period 1	24. 0	144. 8
2	26. 1	124. 1
3	31. 0	119. 2
4	18. 7	114. 2
5	26. 1	124. 1
6	21. 2	120. 4
7	21. 2	105. 6
8	16. 3	92. 7
Mean	23. 1	118. 1
S.D	4. 7	15. 2
C.V. (%)	20	13
1958		
EIGHT 6-DAY PERIODS		
Diets 8 and 8′:[1]		
Subject 26:	*Mcg./100 ml.*	*Mcg./100 ml.*
Period 1	25. 9	121. 9
2	30. 2	123. 4
3	30. 2	111. 8
4	24. 4	89. 7
5	27. 7	101. 3
6	26. 1	99. 5
7	29. 3	104. 4
8	22. 8	92. 7
Mean	27. 1	105. 6
S.D	2. 7	12. 5
C.V. (%)	10	12
Diets 8 and 8′:[1]		
Subject 27:		
Period 1	29. 1	129. 2
2	35. 9	138. 8
3	35. 9	135. 1
4	35. 9	115. 5
5	29. 3	121. 6
6	27. 7	121. 0
7	26. 1	102. 0
8	30. 4	105. 6
Mean	31. 4	121. 1
S.D	4. 0	13. 2
C.V. (%)	13	11
Diets 8 and 8′:[1]		
Subject 28:		
Period 1	30. 7	91. 4
2	21. 2	98. 3
3	27. 7	108. 1
4	24. 4	100. 7
5	21. 2	103. 8
6	25. 3	102. 6
7	25. 3	100. 7
8	17. 9	92. 7
Mean	24. 2	99. 8
S.D	4. 0	5. 6
C.V. (%)	17	6
Diets 8 and 8′:[1]		
Subject 29:		
Period 1	42. 1	121. 3
2	23. 6	98. 9
3	31. 8	126. 5
4	30. 2	133. 9
5	17. 9	98. 3
6	39. 1	126. 5
7	26. 9	114. 8
8	22. 8	106. 9
Mean	29. 3	115. 9
S.D	8. 2	13. 4
C.V. (%)	28	12

See footnote at end of table, p. 78.

TABLE 12.—BLOOD: *Values for blood serum vitamin A and carotene for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Vitamin A	Carotene
1958		
EIGHT 6-DAY PERIODS		
Diets 8 and 8′: [1]		
Subject 30:	*Mcg./100 ml.*	*Mcg./100 ml.*
Period 1	21. 0	109. 1
2	29. 3	88. 4
3	29. 3	100. 7
4	29. 3	90. 9
5	19. 6	90. 9
6	33. 4	126. 5
7	17. 1	87. 2
8	16. 3	72. 5
Mean	24. 4	95. 8
S.D	6. 6	16. 3
C.V. (%)	27	17
Diets 8 and 8′: [1]		
Subject 31:		
Period 1	38. 0	165. 8
2	55. 4	152. 3
3	35. 9	135. 1
4	----------	----------
5	35. 9	121. 6
6	38. 3	113. 6
7	38. 3	103. 2
8	23. 6	98. 9
Mean	37. 9	127. 2
S.D	9. 3	25. 1
C.V. (%)	25	20
Diets 8 and 8′: [1]		
Subject 32:		
Period 1	34. 8	135. 9
2	41. 6	143. 1
3	26. 1	141. 3
4	35. 0	140. 6
5	39. 1	121. 6
6	30. 2	126. 5
7	22. 0	115. 5
8	20. 4	114. 8
Mean	31. 2	129. 9
S.D	7. 8	11. 8
C.V. (%)	25	9
Diets 8 and 8′: [1]		
Subject 33:		
Period 1	27. 0	91. 0
2	30. 2	86. 6
3	11. 4	86. 0
4	16. 3	74. 9
5	22. 0	74. 5
6	21. 2	78. 0
7	15. 5	67. 6
8	14. 7	66. 3
1958		
EIGHT 6-DAY PERIODS		
Diets 8 and 8′: [1]		
Subject 33:	*Mcg./100 ml.*	*Mcg./100 ml.*
Mean	19. 8	78. 1
S.D	6. 5	9. 0
C.V. (%)	33	12
Diets 8 and 8′: [1]		
Subject 34:		
Period 1	22. 5	110. 8
2	29. 9	97. 9
3	34. 2	104. 4
4	29. 3	97. 0
5	22. 8	94. 0
6	30. 2	102. 6
7	23. 6	105. 0
8	23. 6	97. 0
Mean	27. 0	101. 1
S.D	4. 4	5. 6
C.V. (%)	16	6
Diets 8 and 8′: [1]		
Subject 35:		
Period 1	15. 8	90. 5
2	16. 3	65. 1
3	31. 0	65. 1
4	22. 8	71. 2
5	20. 4	74. 3
6	19. 6	71. 2
7	22. 0	67. 6
8	17. 9	71. 2
Mean	20. 7	72. 0
S.D	4. 8	8. 1
C.V. (%)	23	11
Diets 8 and 8′: [1]		
Subject 12:		
Period 1	----------	----------
2	----------	----------
3	----------	----------
4	35. 0	127. 7
5	22. 8	91. 5
6	26. 1	95. 8
7	21. 2	86. 0
8	13. 0	80. 4
Mean	23. 6	96. 3
S.D	8. 0	18. 5
C.V. (%)	34	19
Diets 8 and 8′ (13 subjects):		
Mean	27. 2	107. 4
S.D	7. 6	22. 4
C.V. (%)	28	21

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[1] Diet 8, periods 1–5; diet 8′, periods 6–8.

TABLE 13.—BLOOD: *Whole blood thiamine and riboflavin for preadolescent girls in 2 metabolic studies*

[Virginia; 1956, 1958]

Year, diet, and subject	Thiamine		Riboflavin	
	Initial	Final	Initial	Final
1956				
FOURTEEN 4-DAY PERIODS				
	Mcg./100 ml.	*Mcg./100 ml.*	*Mcg./100 ml.*	*Mcg./100 ml.*
Diet 2:				
Subject 12	3.33	2.92	17.2	17.8
13	3.33	3.36	13.8	18.7
14	3.07	3.68	17.2	18.7
Mean	3.24	3.32	16.1	18.4
S.D.	.15	.38	2.0	.5
C.V. (%)	5	11	12	3
Diet 3:				
Subject 15	3.40	3.68	18.7	16.3
16	3.07	4.40	16.2	15.8
17[1]	3.68	3.68	22.3	17.0
Mean	3.38	3.92	19.1	16.4
S.D.	.30	.42	3.1	.6
C.V. (%)	9	11	16	4
Diet 4:				
Subject 18	3.06	2.84	22.4	14.9
19	2.67	3.08	17.2	18.2
20	2.57	2.92	14.8	16.3
Mean	2.77	2.95	18.1	16.5
S.D.	.26	.12	3.9	1.7
C.V. (%)	9	4	21	10
Diet 5:				
Subject 21	1.80	1.52	16.2	17.3
22	3.40	3.60	17.2	18.7
23	2.63	2.16	16.2	15.8
Mean	2.62	2.43	16.5	17.3
S.D.	.80	1.06	.6	1.4
C.V. (%)	31	44	4	8
1956				
FOURTEEN 4-DAY PERIODS				
	Mcg./100 ml.	*Mcg./100 ml.*	*Mcg./100 ml.*	*Mcg./100 ml.*
12 subjects in 1956:				
Mean	3.00	3.15	17.4	17.1
S.D.	.49	.77	2.6	1.3
C.V. (%)	16	24	15	8
1958				
EIGHT 6-DAY PERIODS				
Diets 8 and 8′:				
Subject 24	4.40	3.72	21.6	9.6
25	4.40	5.56	20.2	10.6
26	5.60	3.16	24.4	13.2
27	4.40	2.84	21.3	8.9
28	5.60	4.80	21.4	8.9
29	5.20	3.64	24.0	9.6
30	4.14	4.00	16.1	9.8
31	5.28	2.40	25.7	10.6
32	4.28	5.92	21.6	14.6
33	4.40	3.16	19.0	13.7
34	3.60	5.56	19.2	14.6
35	3.48	3.88	21.6	12.7
12[2]	6.00	5.20	25.7	9.2
13 Subjects in 1958:				
Mean	4.68	4.14	21.7	11.2
S.D.	.79	1.15	2.8	2.2
C.V. (%)	17	28	13	20

[1] Subject 17 entered the study in period 5.

[2] Subject 12 entered the study in period 4.

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*

[1954, 1956—alternate periods; 1958—all periods]

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1954										
SIXTEEN 4-DAY PERIODS										
TENNESSEE:										
Diet 1:										
Subject 1:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	0.628	0.338	0.200	1.890	1.200	1.740	---	---	---	---
2	---	---	---	---	---	---	4.61	2.40	111	1.14
3	.577	.105	.342	2.370	1.970	3.080	---	---	---	---
4	---	---	---	---	---	---	4.08	1.79	104	1.06
5	.306	.105	.343	3.860	1.830	2.960	---	---	---	---
6	---	---	---	---	---	---	3.99	2.68	109	.78
7	.507	.354	.198	2.570	1.640	1.580	---	---	---	---
8	---	---	---	---	---	---	5.25	2.96	104	1.24
9	.476	.265	.180	1.500	.928	1.740	---	---	---	---
10	---	---	---	---	---	---	4.98	2.39	82	1.21
11	.357	.255	.189	1.220	.280	2.050	---	---	---	---
12	---	---	---	---	---	---	6.22	3.08	119	1.05
13	.436	.246	.201	1.490	.840	1.970	---	---	---	---
14	---	---	---	---	---	---	5.39	2.67	92	1.08
15	.351	.333	.250	1.830	.588	1.260	---	---	---	---
16	---	---	---	---	---	---	4.60	3.08	78	.76
Mean	.455	.250	.238	2.091	1.160	2.048	4.89	2.63	100	1.04
S.D.	.114	.098	.068	.846	.609	.647	.74	.44	14	.18
C.V. (%)	25	39	29	40	52	32	15	17	14	17
Diet 1:										
Subject 2:										
Period 1	.628	.224	.370	1.890	.936	2.420	---	---	---	---
2	---	---	---	---	---	---	4.61	.84	111	.72
3	.577	.280	.435	2.370	1.180	3.240	---	---	---	---
4	---	---	---	---	---	---	4.08	2.39	104	1.10
5	.337	.300	.649	1.750	1.200	3.440	---	---	---	---
6	---	---	---	---	---	---	3.99	2.94	109	1.18
7	.507	.306	.283	2.570	1.920	1.180	---	---	---	---
8	---	---	---	---	---	---	5.25	3.15	104	1.26
9	.495	.285	.183	1.650	.880	.880	---	---	---	---
10	---	---	---	---	---	---	4.98	3.16	82	1.22
11	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	3.56	2.62	73	.72
13	.436	.282	.367	1.490	.684	1.910	---	---	---	---
14	---	---	---	---	---	---	2.27	2.74	55	1.04
15	.360	.376	.390	.730	.344	2.430	---	---	---	---
16	---	---	---	---	---	---	4.86	2.81	106	.79
Mean	.477	.293	.382	1.779	1.021	2.214	4.20	2.58	93	1.00
S.D.	.107	.045	.144	.604	.494	.965	.96	.75	21	.23
C.V. (%)	22	15	38	34	48	44	23	29	22	23

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1954										
SIXTEEN 4-DAY PERIODS										
TENNESSEE—Continued										
Diet 1:										
Subject 3:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	.628	.346	.296	1.890	1.840	2.840	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---
3	.451	.346	.476	1.740	1.230	2.090	---	---	---	---
4	---	---	---	---	---	---	4.52	1.96	84	1.08
5	.245	.183	.384	3.090	1.300	1.800	---	---	---	---
6	---	---	---	---	---	---	3.99	2.19	109	1.26
7	.387	.261	.219	1.700	1.310	.750	---	---	---	---
8	---	---	---	---	---	---	4.20	2.21	83	.70
9	.381	.340	.400	1.200	.980	1.740	---	---	---	---
10	---	---	---	---	---	---	4.48	2.33	74	.74
11	.357	.354	.278	1.220	.352	1.850	---	---	---	---
12	---	---	---	---	---	---	6.22	2.62	119	1.40
13	.436	.255	.174	1.490	.684	1.760	---	---	---	---
14	---	---	---	---	---	---	5.39	2.42	92	1.32
15	.404	.260	.337	1.620	1.080	1.750	---	---	---	---
16	---	---	---	---	---	---	2.97	2.09	57	1.12
Mean	.411	.293	.320	1.744	1.097	1.822	4.54	2.26	88	1.09
S.D.	.108	.062	.099	.596	.447	.570	1.04	.22	21	.27
C.V. (%)	26	21	31	34	41	31	23	10	24	25
Diet 1:										
Subject 4:										
Period 1	.628	.429	.437	1.890	1.220	2.060	---	---	---	---
2	---	---	---	---	---	---	4.61	1.30	111	1.12
3	.577	.280	.556	2.370	1.200	3.100	---	---	---	---
4	---	---	---	---	---	---	4.08	2.76	104	1.85
5	.306	.253	.479	3.860	1.180	3.100	---	---	---	---
6	---	---	---	---	---	---	3.99	2.83	109	1.28
7	.507	.304	.471	2.570	1.970	1.280	---	---	---	---
8	---	---	---	---	---	---	5.25	3.15	104	1.44
9	.476	.200	.401	1.500	.980	.920	---	---	---	---
10	---	---	---	---	---	---	4.98	2.85	82	1.44
11	.357	.200	.404	1.220	.480	2.060	---	---	---	---
12	---	---	---	---	---	---	6.22	3.00	119	1.12
13	.436	.294	.373	1.490	.880	1.610	---	---	---	---
14	---	---	---	---	---	---	5.39	3.71	92	1.24
15	.351	.313	.336	1.830	.400	1.150	---	---	---	---
16	---	---	---	---	---	---	4.60	3.12	78	1.32
Mean	.455	.284	.432	2.091	1.039	1.910	4.89	2.84	100	1.35
S.D.	.114	.073	.069	.846	.492	.839	.74	.69	14	.24
C.V. (%)	25	26	16	40	47	44	15	24	14	18

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1954										
SIXTEEN 4-DAY PERIODS										
TENNESSEE—Continued										
Diet 1:										
Subject 5:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	.628	.368	.414	1.890	1.380	4.540				
2							4.61	2.41	111	1.13
3	.577	.417	.341	2.370	1.770	2.120				
4							4.08	2.45	104	.91
5	.306	.093	.495	3.860	1.880	2.440				
6							3.99	2.72	109	.82
7	.507	.258	.483	2.570	1.630	1.430				
8							5.25	3.20	104	1.29
9	.476	.335	.438	1.500	1.200	1.790				
10							4.98	1.55	82	.86
11	.357	.391	.320	1.220	.936	1.400				
12							6.22	3.82	119	1.00
13	.314	.268	.493	1.080	.648	3.880				
14							3.79	3.25	77	1.28
15	.351	.510	.339	1.830	1.710	1.680				
16							5.58	3.16	90	.75
Mean	.440	.330	.415	2.040	1.394	2.410	4.81	2.82	100	1.00
S.D	.125	.126	.074	.899	.437	1.176	.85	.69	15	.21
C.V. (%)	28	38	18	44	31	49	18	24	15	21
Diet 1:										
Subject 6:										
Period 1	.628	.335	.261	1.890	1.360	2.490				
2							4.61	1.63	111	.81
3	.577	.293	.367	2.370	1.120	2.120				
4							4.08	2.20	104	.94
5	.306	.340	.433	3.860	1.680	2.720				
6							3.99	2.58	109	.96
7	.414	.272	.252	1.230	1.960	1.040				
8							5.25	2.84	(1)	(1)
9	.476	.390	.210	1.500	.928	2.040				
10							4.98	3.35	82	1.01
11	.357	.283	.235	1.220	.293	2.080				
12							6.22	3.06	119	1.05
13	.436	.274	.193	1.490	.840	2.000				
14							5.39	2.80	92	.98
15	.351	.360	.336	1.830	1.184	1.480				
16							4.60	3.52	78	1.08
Mean	.443	.318	.286	1.924	1.171	1.996	4.89	2.75	99	.98
S.D	.113	.044	.084	.870	.515	.531	.74	.61	16	.09
C.V. (%)	26	14	29	45	44	27	15	22	16	9
6 subjects (Tenn.):										
Mean	.446	.295	.345	1.948	1.149	2.064	4.71	2.65	97	1.08
S.D	.109	.081	.112	.760	.490	.796	.84	.60	17	.24
C.V. (%)	24	27	32	39	43	39	18	23	17	22

See footnotes at end of table, p. 96.

ABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 mdtabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1954										
SIXTEEN 4-DAY PERIODS										
OUISIANA:										
Diet 1:										
Subject 7:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	1. 030	0. 191	0. 343	2. 360	1. 720	4. 100				
2										
3	1. 123	. 304	. 399	2. 290	2. 120	3. 330				
4							4. 27	2. 80	113	1. 66
5	1. 051	. 274	. 335	. 708	. 468	2. 040				
6							3. 22	2. 98	102	1. 30
7	1. 071	. 265	. 391	1. 170	1. 010	2. 220				
8							3. 87	2. 84	90	1. 55
9	. 982	. 296	. 350	. 988	1. 270	3. 390				
10							4. 46	2. 11	102	1. 05
11	1. 104	. 356	. 343	1. 360	1. 340	2. 310				
12							5. 07	3. 34	112	1. 32
13	1. 091	. 315	. 338	2. 790	1. 780	3. 480				
14							4. 14	3. 12	94	1. 52
15	1. 051	. 273	. 371	2. 160	2. 840	3. 410				
16							4. 96	2. 38	86	1. 18
Mean	1. 063	. 284	. 359	1. 728	1. 568	3. 035	4. 28	2. 80	100	1. 37
S.D	. 045	. 048	. 025	. 762	. 722	. 743	. 64	. 42	10	. 22
C.V. (%)	4	17	7	44	46	24	15	15	10	16
Diet 1:										
Subject 8:										
Period 1	1. 030	. 215	. 397	2. 360	1. 730	3. 890				
2							3. 93	2. 84	92	1. 55
3	1. 123	. 234	. 532	2. 290	1. 770	3. 260				
4							4. 27	2. 87	113	1. 54
5	1. 051	. 211	. 417	. 708	. 800	2. 220				
6							3. 22	1. 74	102	1. 52
7	1. 071	. 239	. 474	1. 170	1. 190	2. 360				
8							3. 87	3. 29	90	1. 66
9	. 982	. 222	. 440	. 988	1. 400	2. 780				
10							4. 46	2. 72	102	1. 90
11	1. 104	. 271	. 375	1. 360	. 970	2. 140				
12							5. 07	3. 16	112	1. 82
13	1. 091	. 229	. 416	2. 790	2. 150	2. 860				
14							4. 14	1. 59	94	1. 08
15	1. 051	. 213	. 493	2. 160	2. 540	3. 540				
16							4. 96	2. 98	86	1. 75
Mean	1. 063	. 229	. 443	1. 728	1. 569	2. 881	4. 24	2. 65	99	1. 60
S.D	. 045	. 020	. 053	. 762	. 594	. 640	. 60	. 63	10	. 25
C.V. (%)	4	9	12	44	38	22	14	24	10	16

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1954										
SIXTEEN 4-DAY PERIODS										
LOUISIANA—Continued										
Diet 1:										
Subject 9:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	1. 030	. 432	. 292							
2							3. 93	2. 92	92	2. 29
3	1. 123	. 354	. 451							
4							4. 27	3. 71	113	2. 02
5										
6							3. 22	3. 34	102	1. 30
7	1. 071	. 299	. 494	1. 170	. 442	2. 260				
8							3. 87	2. 69	90	1. 75
9	. 982	. 321	. 421	. 988	. 908	2. 780				
10							4. 46	2. 88	102	1. 72
11	1. 104	. 328	. 273	1. 360	. 880	2. 710				
12							5. 07	3. 62	112	1. 86
13	1. 091	. 241	. 443	2. 790	2. 230	2. 890				
14							4. 14	3. 24	94	1. 40
15	1. 051	. 247	. 395	2. 160	1. 620	2. 760				
16							4. 96	2. 72	86	1. 46
Mean	1. 065	. 317	. 396	1. 694	1. 216	2. 680	4. 24	3. 14	99	1. 72
S.D	. 048	. 065	. 083	. 759	. 707	. 244	. 60	. 40	10	. 33
C.V. (%)	5	21	21	45	58	9	14	13	10	19
Diet 1:										
Subject 10:										
Period 1	1. 030	. 468	. 443	2. 360	1. 300	3. 340				
2							3. 93	3. 52	92	1. 45
3	1. 123	. 348	. 456	2. 290	1. 480	2. 790				
4							4. 27	4. 12	113	. 78
5	1. 051	. 302	. 507	. 708	. 680	1. 710				
6							3. 22	3. 44	102	1. 02
7	1. 071	. 281	. 482	1. 170	. 810	1. 890				
8							3. 87	3. 40	90	1. 03
9	. 982	. 272	. 411	. 988	. 544	2. 160				
10							4. 46	3. 26	102	. 97
11	1. 104	. 302	. 473	1. 360	1. 570	4. 120				
12							5. 07	3. 30	112	1. 20
13	1. 091	. 258	. 295	2. 290	1. 370	2. 520				
14							4. 14	3. 30	(1)	(1)
15	1. 051	. 256	. 383	2. 160	1. 620	2. 630				
16							4. 96	2. 88	86	. 95
Mean	1. 063	. 311	. 431	1. 666	1. 172	2. 645	4. 24	3. 40	100	1. 06
S.D	. 045	. 070	. 068	. 678	. 427	. 791	. 60	. 35	11	. 21
C.V. (%)	4	23	16	41	36	30	14	10	11	20

See footnotes at end of table, p. 96.

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1954										
SIXTEEN 4-DAY PERIODS										
LOUISIANA—Continued										
Diet 1:										
Subject 11:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	1.030	.432	.349	2.360	1.370	3.620				
2							3.93	3.60	92	1.44
3	1.123	.316	.409	2.290	1.750	3.250				
4							4.27	3.52	113	1.21
5	1.051	.289	.377	.708	.880	1.530				
6							3.22	3.72	102	1.28
7	1.071	.287	.501	1.170	.808	2.100				
8							3.87	3.24	90	1.60
9	.982	.308	.411	.988	.824	2.920				
10							4.46	3.26	102	1.42
11	1.104	.309	.405	1.360	1.920	3.780				
12							5.07	3.16	112	1.15
13	1.091	.315	.442	2.790	1.190	2.480				
14							4.14	3.21	(1)	(1)
15	1.051	.263	.344	2.160	1.800	2.720				
16							4.96	3.35	86	1.82
Mean	1.063	.315	.405	1.728	1.318	2.800	4.24	3.38	100	1.42
S.D.	.045	.051	.051	.762	.462	.762	.60	.21	11	.23
C.V. (%)	4	16	13	44	35	27	14	6	11	16
5 subjects (La.):										
Mean	1.063	.291	.407	1.710	1.381	2.819	4.25	3.08	99	1.45
S.D.	.043	.061	.063	.702	.577	.670	.58	.51	10	.34
C.V. (%)	4	21	15	41	42	24	14	17	10	23
11 subjects in 1954:										
Mean	0.726	0.293	0.373	1.843	1.251	2.396	4.50	2.85	98	1.24
S.D.	.321	.072	.098	.741	.539	.830	.76	.60	14	.34
C.V. (%)	44	25	26	40	43	35	17	21	14	27
1956										
FOURTEEN 4-DAY PERIODS										
VIRGINIA:										
Diet 2:										
Subject 12:										
Period 1	0.596	0.200	0.252	2.380	1.260	1.940				
2							3.77	1.35	74	1.05
3	.571	.091	.235	2.210	.870	1.580				
4							4.90	1.32	72	1.02
5	1.150	.147	.300	2.240	1.090	1.690				
6							4.23	1.18	74	.88
7	.553	.140	.308	1.340	1.080	2.240				
8							3.36	1.34	(1)	(1)
9	.511	.115	.192	1.950	1.640	2.200				
10							4.56	1.77	(1)	(1)
11	.592	.175	.062	2.260	1.580	1.740				
12							3.64	1.09	(1)	(1)
13	.484	.110	.043	1.900	1.200	1.950				
14							3.62	2.24	90	1.70
Mean	.637	.140	.199	2.040	1.246	1.906	4.01	1.47	78	1.16
S.D.	.230	.038	.108	.354	.278	.252	.56	.40	8	.37
C.V. (%)	36	27	54	17	22	13	14	27	11	32

See footnotes at end of table, p. 96.

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1956										
FOURTEEN 4-DAY PERIODS										
VIRGINIA—Continued										
Diet 2:										
Subject 13:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	.596	.213	.239	2.380	1.090	2.340				
2							3.77	1.92	74	1.20
3	.571	.111	.203	2.210	.800	1.740				
4							4.90	1.18	72	.92
5	1.150	.124	.190	2.240	1.070	2.880				
6							4.23	1.28	74	1.05
7	.553	.195	.319	1.340	.760	2.220				
8							5.02	1.04	88	.50
9	.544	.166	.337	1.450	.650	2.360				
10							4.56	1.42	85	1.20
11	.592	.316	.156	2.260	.980	2.690				
12							3.64	1.59	80	1.32
13	.484	.215	.236	1.900	1.250	2.580				
14							3.62	2.23	90	1.79
Mean	.641	.191	.240	1.969	.943	2.401	4.25	1.52	80	1.14
S.D	.227	.069	.067	.419	.213	.370	.59	.42	7	.39
C.V. (%)	35	36	28	21	23	15	14	28	9	34
Diet 2:										
Subject 14:										
Period 1	.596	.120	.344	2.380	1.410	2.330				
2							3.77	1.90	74	1.16
3	.571	.080	.260	2.210	.760	1.750				
4							4.90	1.07	72	.82
5	1.150	.133	.366	2.240	.760	1.740				
6							4.23	1.05	74	.82
7	.553	.115	.311	1.340	.760	1.540				
8							5.02	.99	88	.93
9	.544	.066	.177	1.450	.810	2.200				
10							4.56	1.73	85	1.12
11	.592	.144	.176	2.260	.980	2.740				
12							3.64	.93	80	.84
13	.484	.128	.470	1.900	1.510	3.570				
14							3.62	1.23	90	.98
Mean	.641	.112	.301	1.969	.999	2.267	4.25	1.27	80	.95
S.D	.227	.029	.106	.419	.326	.708	.59	.39	7	.14
C.V. (%)	35	26	35	21	33	31	14	31	9	15
3 subjects on diet 2:										
Mean	.640	.148	.246	1.992	1.062	2.191	4.17	1.42	80	1.07
S.D	.217	.057	.100	.380	.295	.506	.57	.40	7	.31
C.V. (%)	34	39	41	19	28	23	14	28	9	29

Table 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1956										
FOURTEEN 4-DAY PERIODS										
Virginia—Continued										
Diet 3:										
Subject 15:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	0. 531	0. 240	0. 244	1. 500	1. 200	2. 740				
2							5. 32	2. 73	66	0. 90
3	. 861	. 204	. 219	2. 270	. 930	1. 820				
4							5. 84	2. 38	69	. 86
5	1. 120	. 175	. 297	1. 980	. 920	3. 080				
6							5. 09	1. 65	76	. 91
7	. 768	. 006	. 121	1. 850	. 970	3. 000				
8							6. 20	1. 29	83	. 75
9	. 628	. 269	. 245	2. 730	1. 190	2. 190				
10							6. 32	2. 08	78	. 98
11	. 767	. 284	. 317	1. 420	1. 510	2. 509				
12							4. 08	2. 00	75	1. 02
13	. 836	. 375	. 289	2. 130	1. 550	2. 860				
14							5. 12	2. 06	86	. 86
Mean	. 787	. 222	. 247	1. 983	1. 181	2. 599	5. 42	2. 03	76	. 90
S.D	. 187	. 115	. 066	. 453	. 265	. 459	. 77	. 47	7	. 09
C.V. (%)	24	52	27	23	22	18	14	23	9	10
Diet 3:										
Subject 16:										
Period 1	. 531	. 251	. 260	1. 500	1. 250	2. 070				
2							5. 32	1. 83	66	1. 08
3	. 861	. 106	. 280	2. 270	1. 090	1. 900				
4							5. 84	2. 85	69	1. 25
5	1. 120	. 310	. 245	1. 980	. 580	1. 810				
6							5. 09	1. 46	76	1. 05
7	. 768	. 208	. 296	1. 850	1. 370	3. 320				
8							6. 20	1. 30	83	1. 05
9	. 628	. 262	. 268	2. 730	1. 080	2. 620				
11							6. 32	2. 26	78	1. 26
11	. 767	. 309	. 350	1. 420	1. 540	2. 770				
12							4. 08	2. 21	75	1. 24
13	. 836	. 375	. 285	2. 130	1. 210	2. 570				
14							5. 12	2. 62	86	1. 32
Mean	. 787	. 260	. 283	1. 983	1. 160	2. 437	5. 42	2. 08	76	1. 18
S.D	. 187	. 086	. 034	. 453	. 302	. 541	. 77	. 58	7	. 11
C.F. (%)	24	33	12	23	26	22	14	28	9	9

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1956										
FOURTEEN 4-DAY PERIODS										
VIRGINIA—Continued										
Diet 3:										
Subject 17:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	------	------	------	------	------	------	------	------	------	------
2	------	------	------	------	------	------	------	------	------	------
3	------	------	------	------	------	------	------	------	------	------
4	------	------	------	------	------	------	------	------	------	------
5	1. 120	. 307	. 182	------	------	------	------	------	------	------
6	------	------	------	------	------	------	5. 09	1. 32	76	1. 10
7	. 768	. 211	. 133	1. 850	1. 340	2. 660	------	------	------	------
8	------	------	------	------	------	------	6. 20	1. 23	83	. 97
9	. 628	. 206	. 286	2. 730	1. 510	2. 160	------	------	------	------
10	------	------	------	------	------	------	6. 32	2. 48	78	1. 08
11	. 767	. 300	. 313	1. 420	1. 640	2. 960	------	------	------	------
12	------	------	------	------	------	------	4. 08	2. 87	75	1. 17
13	. 836	. 377	. 391	2. 130	1. 320	2. 960	------	------	------	------
14	------	------	------	------	------	------	5. 12	1. 25	86	1. 04
Mean	. 824	. 280	. 261	2. 032	1. 452	2. 685	5. 36	1. 83	80	1. 07
S.D	. 182	. 072	. 104	. 549	. 151	. 377	. 92	. 78	5	. 07
C.V. (%)	22	26	40	27	10	14	17	43	6	7
3 subjects on diet 3:										
Mean	. 797	. 251	. 264	1. 994	1. 233	2. 555	5. 41	1. 99	77	1. 05
S.D	. 176	. 093	. 067	. 445	. 275	. 462	. 77	. 57	6	. 15
C.V. (%)	22	37	25	22	22	18	14	29	8	14
Diet 4:										
Subject 18:										
Period 1	0. 620	0. 184	0. 379	2. 130	1. 110	2. 870	------	------	------	------
2	------	------	------	------	------	------	5. 65	2. 92	65	1. 21
3	. 658	. 213	. 373	2. 460	1. 030	2. 280	------	------	------	------
4	------	------	------	------	------	------	4. 88	1. 83	74	. 80
5	. 695	. 323	. 490	3. 320	. 590	1. 760	------	------	------	------
6	------	------	------	------	------	------	4. 47	1. 37	79	. 76
7	. 449	. 271	. 438	1. 470	. 750	2. 860	------	------	------	------
8	------	------	------	------	------	------	5. 33	1. 36	80	1. 20
9	. 640	. 342	. 384	2. 250	1. 110	2. 790	------	------	------	------
10	------	------	------	------	------	------	4. 59	2. 27	80	1. 18
11	. 727	. 195	. 180	2. 910	1. 850	2. 430	------	------	------	------
12	------	------	------	------	------	------	3. 95	2. 44	92	1. 23
13	. 709	. 151	. 363	2. 320	1. 080	2. 330	------	------	------	------
14	------	------	------	------	------	------	5. 00	1. 56	92	. 93
Mean	. 643	. 240	. 372	2. 409	1. 074	2. 474	4. 84	1. 96	80	1. 04
S.D	. 094	. 073	. 096	. 588	. 397	. 403	. 56	. 60	10	. 21
C.V. (%)	15	30	26	24	37	16	12	31	12	20

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1956										
FOURTEEN 4-DAY PERIODS										
VIRGINIA—Continued										
Diet 4:										
Subject 19:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	.620	.209	.049	2.130	1.520	2.020				
2							5.65	2.58	65	1.57
3	.658	.175	.265	2.460	1.080	2.710				
4							4.88	1.56	74	1.12
5	.695	.330	.088	3.320	.860	1.020				
6							4.47	1.35	79	.95
7	.449	.208	.263	1.470	1.520	1.790				
8							5.33	.92	80	.95
9				2.250	1.360	1.800				
10							4.59	1.86	80	1.36
11				2.910	1.880	2.220				
12							3.95	1.68	92	1.52
13				2.320	1.520	2.290				
14							5.00	1.36	92	1.60
Mean	.606	.230	.166	2.409	1.391	1.979	4.84	1.62	80	1.30
S.D	.109	.068	.114	.588	.334	.529	.56	.52	10	.29
C.V. (%)	18	30	69	24	24	27	12	32	12	22
Diet 4:										
Subject 20:										
Period 1	.620	.175	.208	2.130	1.530	2.830				
2							5.65	1.32	65	.99
3	.658	.151	.098	2.460	.980	2.340				
4							4.88	1.36	74	.98
5	.695	.213	.428	3.320	1.630	1.060				
6							4.47	1.15	79	.78
7	.478	.178	.245	1.390	.690	1.560				
8							4.46	1.07	74	.90
9	.640	.100	.253	2.250	.990	2.260				
10							4.59	1.07	80	.74
11	.727	.180	.332	2.910	1.410	3.030				
12							3.95	1.30	92	.94
13	.709	.140	.249	2.320	.980	2.590				
14							5.00	.94	92	.82
Mean	.647	.162	.259	2.397	1.173	2.239	4.71	1.17	79	.88
S.D	.084	.036	.102	.610	.350	.702	.53	.16	10	.10
C.V. (%)	13	22	39	25	30	31	11	14	12	11
3 subjects on diet 4:										
Mean	.636	.208	.282	2.405	1.213	2.230	4.80	1.58	80	1.07
S.D	.089	.068	.126	.565	.369	.569	.53	.56	9	.27
C.V. (%)	14	33	45	23	30	26	11	35	11	25

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1956										
FOURTEEN 4-DAY PERIODS										
VIRGINIA—Continued										
Diet 5:										
Subject 21:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	0. 731	0. 175	0. 476	2. 460	1. 520	3. 900				
2							6. 70	1. 79	72	1. 60
3	. 694	. 137	. 270	2. 260	1. 550	2. 510				
4							5. 46	1. 44	72	1. 09
5	. 754	. 277	. 413	2. 530	1. 030	1. 730				
6							5. 49	2. 48	106	1. 06
7	. 716	. 246	. 200	1. 530	1. 190	1. 980				
8							5. 69	1. 30	96	1. 22
9	. 620	. 211	. 593	2. 240	1. 630	2. 910				
10							5. 39	3. 03	91	1. 24
11	. 686	. 362	. 482	1. 880	1. 810	3. 390				
12							4. 94	1. 69	76	1. 50
13	. 746	. 188	. 322	2. 410	1. 630	2. 870				
14							5. 81	2. 88	82	1. 38
Mean	. 707	. 228	. 394	2. 187	1. 480	2. 756	5. 64	2. 09	85	1. 30
S.D	. 046	. 075	. 137	. 360	. 273	. 760	. 54	. 70	13	. 20
C.V. (%)	7	33	35	16	18	28	10	33	15	15
Diet 5:										
Subject 22:										
Period 1	. 731	. 240	. 369	2. 460	1. 200	3. 600				
2							6. 70	2. 32	72	1. 69
3	. 694	. 240	. 524	2. 260	1. 550	3. 840				
4							5. 46	1. 69	72	1. 45
5	. 754	. 350	. 295	2. 530	. 780	1. 320				
6							5. 49	1. 85	106	1. 55
7	. 716	. 386	. 478	1. 530	. 890	1. 670				
8							5. 69	1. 42	96	1. 54
9	. 620	. 266	. 316	2. 240	. 890	2. 760				
10							5. 39	1. 92	91	1. 78
11	. 686	. 334	. 322	1. 880	1. 520	2. 620				
12							4. 94	2. 51	76	1. 85
13	. 746	. 240	. 205	2. 410	1. 530	2. 630				
14							5. 81	1. 26	82	1. 57
Mean	. 707	. 294	. 358	2. 187	1. 194	2. 634	5. 64	1. 85	85	1. 63
S.D	. 046	. 062	. 110	. 360	. 342	. 918	. 54	. 45	13	. 14
C.V. (%)	7	21	31	16	29	35	10	24	15	9

Table 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1956										
FOURTEEN 4-DAY PERIODS										
Virginia—Continued										
Diet 5:										
Subject 23:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	.731	.340	.423	2.460	1.310	3.570	------	------	------	------
2	------	------	------	------	------	------	6.70	1.47	72	.98
3	.694	.340	.284	2.260	1.700	3.620	------	------	------	------
4	------	------	------	------	------	------	5.46	1.79	72	1.00
5	.754	.342	.470	2.530	.840	1.180	------	------	------	------
6	------	------	------	------	------	------	5.49	1.28	106	1.12
7	.716	.346	.491	1.530	.780	1.550	------	------	------	------
8	------	------	------	------	------	------	5.69	1.36	96	1.01
9	.620	.215	.359	2.240	.980	2.250	------	------	------	------
10	------	------	------	------	------	------	5.39	3.00	91	1.04
11	.686	.304	.471	1.880	1.290	2.780	------	------	------	------
12	------	------	------	------	------	------	4.94	1.62	76	1.12
13	.746	.273	.211	2.410	1.580	3.010	------	------	------	------
14	------	------	------	------	------	------	5.81	1.38	82	1.00
Mean	.707	.309	.387	2.187	1.211	2.566	5.64	1.70	85	1.04
S.D	.046	.049	.107	.360	.358	.950	.54	.60	13	.06
C.V. (%)	7	16	28	16	30	37	10	35	15	6
3 subjects on diet 5										
Mean	.707	.277	.380	2.187	1.295	2.652	5.64	1.88	85	1.32
S.D	.043	.070	.114	.341	.337	.839	.51	.59	12	.29
C.V. (%)	6	25	30	16	26	32	9	31	15	22
12 subjects in 1956:										
Mean	0.695	0.221	0.294	2.150	1.200	2.402	4.99	1.71	81	1.13
S.D	.160	.087	.115	.465	.328	.638	.82	.57	10	.28
C.V. (%)	23	39	39	22	27	27	16	33	12	25
1958										
EIGHT 6-DAY PERIODS										
Virginia:										
Diet 8:										
Subject 24:										
Period 1	1.102	0.231	0.384	2.053	0.709	0.549	3.02	1.27	47	2.90
2	1.009	.179	.339	2.040	.814	.414	3.11	.84	47	1.20
3	1.131	.259	.303	2.073	.886	.566	2.97	.93	44	1.07
4	.907	.276	.269	2.130	.971	.452	2.89	1.05	52	1.29
5	.981	.224	.218	2.075	1.070	.425	2.95	1.15	59	.64
Mean	1.026	.234	.303	2.074	.890	.481	2.99	1.05	50	1.42
S.D	.091	.037	.064	.034	.139	.071	.08	.17	6	.86
C.V. (%)	9	16	21	2	16	15	3	16	12	61
Diet 8′:										
Subject 24:										
Period 6	.989	.231	.319	2.093	1.180	.492	2.26	1.09	(1)	(1)
7	1.018	.244	.327	2.307	1.078	.499	2.34	.90	57	1.55
8	1.008	.231	.301	2.236	.946	.490	2.54	.78	53	1.18
Mean	1.005	.235	.316	2.212	1.068	.494	2.38	.92	55	1.36
S.D	.015	.008	.013	.109	.117	.005	.14	.16	3	.26
C.V. (%)	1	3	4	5	11	1	6	17	5	19

See footnotes at end of table, p. 96.

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1958										
EIGHT 6-DAY PERIODS										
VIRGINIA—Continued										
Diet S:										
Subject 25:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	1. 102	. 172	. 446	2. 053	. 901	. 528	3. 02	1. 89	47	1. 58
2	1. 009	. 189	. 396	2. 040	. 926	. 513	3. 11	1. 68	47	. 99
3	1. 131	. 269	. 373	2. 073	. 996	. 567	2. 97	1. 61	44	1. 07
4	. 907	. 279	. 377	2. 130	1. 090	. 486	2. 89	1. 63	52	1. 22
5	. 981	. 231	. 338	2. 075	1. 023	. 451	2. 95	1. 56	59	1. 40
Mean	1. 026	. 228	. 386	2. 074	. 987	. 509	2. 99	1. 67	50	1. 25
S.D	. 091	. 047	. 040	. 034	. 076	. 044	. 08	. 13	6	. 24
C.V. (%)	9	21	10	2	8	9	3	8	12	19
Diet S′:										
Subject 25:										
Period 6	. 989	. 304	. 432	2. 093	1. 080	. 428	2. 26	1. 33	53	1. 56
7	1. 018	. 231	. 438	2. 307	1. 125	. 617	2. 34	1. 20	57	1. 40
8	1. 008	. 244	. 361	2. 236	. 976	. 445	2. 54	1. 14	53	1. 28
Mean	1. 005	. 260	. 410	2. 212	1. 060	. 497	2. 38	1. 22	54	1. 41
S.D	. 015	. 039	. 043	. 109	. 076	. 105	. 14	. 10	2	. 14
C.V. (%)	1	15	10	5	7	21	6	8	4	10
Diet S:										
Subject 26:										
Period 1	1. 102	. 264	. 324	2. 053	1. 182	. 427	3. 02	1. 64	47	1. 79
2	1. 009	. 187	. 238	2. 040	. 871	. 361	3. 11	1. 12	47	. 98
3	1. 131	. 259	. 158	2. 073	1. 055	. 422	2. 97	1. 08	44	1. 09
4	. 907	. 231	. 197	2. 130	. 926	. 460	2. 89	1. 09	52	. 60
5	. 981	. 179	. 146	2. 075	. 970	. 307	2. 95	1. 16	59	. 92
Mean	1. 026	. 224	. 213	2. 074	1. 001	. 395	2. 99	1. 22	50	1. 08
S.D	. 091	. 040	. 072	. 034	. 122	. 061	. 08	. 24	6	. 44
C.V. (%)	9	18	34	2	12	15	3	20	12	41
Diet S′:										
Subject 26:										
Period 6	. 989	. 299	. 245	2. 093	1. 023	. 367	2. 26	. 99	53	1. 70
7	1. 018	. 244	. 251	2. 307	1. 078	. 497	2. 34	. 94	57	1. 44
8	1. 008	. 231	. 254	2. 236	1. 125	. 423	2. 54	. 95	53	1. 27
Mean	1. 005	. 258	. 250	2. 212	1. 075	. 429	2. 38	. 96	54	1. 47
S.D	. 015	. 036	. 005	. 109	. 051	. 065	. 14	. 03	2	. 22
C.V. (%)	1	14	2	5	5	15	6	3	4	15
Diet S:										
Subject 27:										
Period 1	1. 102	. 219	. 321	2. 053	1. 060	. 422	3. 02	2. 11	47	1. 32
2	1. 009	. 274	. 326	2. 040	. 901	. 384	3. 11	1. 70	47	1. 39
3	1. 131	. 229	. 347	2. 073	. 946	. 540	2. 97	1. 38	44	1. 10
4	. 907	. 231	. 229	2. 130	1. 125	. 399	2. 89	1. 43	52	1. 15
5	. 981	. 229	. 183	2. 075	. 879	. 287	2. 95	1. 44	59	1. 40
Mean	1. 026	. 236	. 281	2. 074	. 982	. 406	2. 99	1. 61	50	1. 27
S.D	. 091	. 022	. 071	. 034	. 106	. 091	. 08	. 31	6	. 14
C.V. (%)	9	9	25	2	11	22	3	19	12	11

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1958										
EIGHT 6-DAY PERIODS										
VIRGINIA—Continued										
Diet 8′:										
Subject 27:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 6	0. 989	0. 256	0. 254	2. 093	0. 946	0. 344	2. 26	1. 22	53	1. 90
7	1. 018	. 202	. 274	2. 307	. 841	. 399	2. 34	1. 22	57	1. 64
8	1. 008	. 231	. 339	2. 236	1. 025	. 455	2. 54	1. 02	53	1. 41
Mean	1. 005	. 230	. 289	2. 212	. 937	. 399	2. 38	1. 15	54	1. 68
S.D.	. 015	. 027	. 044	. 109	. 092	. 056	. 14	. 12	2	. 29
C.V. (%)	1	12	15	5	10	14	6	10	4	17
Diet 8:										
Subject 28:										
Period 1	1. 102	. 179	. 383	2. 053	. 996	. 527	3. 02	1. 48	47	1. 83
2	1. 009	. 144	. 346	2. 040	. 916	. 405	3. 11	1. 24	47	. 93
3	1. 131	. 162	. 358	2. 073	. 973	. 535	2. 97	1. 02	44	1. 02
4	. 907	. 229	. 297	2. 130	1. 072	. 513	2. 89	1. 15	52	1. 25
5	. 981	. 192	. 305	2. 075	1. 125	. 407	2. 95	1. 22	59	2. 86
Mean	1. 026	. 181	. 338	2. 074	1. 016	. 477	2. 99	1. 22	50	1. 58
S.D.	. 091	. 032	. 036	. 034	. 083	. 066	. 08	. 17	6	. 80
C.V. (%)	9	18	11	2	8	14	3	14	12	51
Diet 8′:										
Subject 28:										
Period 6	. 989	. 231	. 350	2. 093	1. 008	. 476	2. 26	1. 00	53	1. 58
7	1. 018	. 179	. 358	2. 307	1. 120	. 560	2. 34	. 98	57	1. 50
8	1. 008	. 179	. 324	2. 236	1. 070	. 482	2. 54	. 93	53	1. 32
Mean	1. 005	. 196	. 344	2. 212	1. 066	. 506	2. 38	. 97	54	1. 47
S.D.	. 015	. 030	. 018	. 109	. 056	. 047	. 14	. 04	2	. 13
C.V. (%)	1	15	5	5	5	9	6	4	4	9
Diet 8:										
Subject 29:										
Period 1	1. 102	. 269	. 369	2. 053	. 988	. 316	3. 02	2. 28	47	. 88
2	1. 009	. 179	. 393	2. 040	1. 025	. 317	3. 11	1. 59	47	1. 24
3	1. 131	. 256	. 445	2. 073	1. 050	. 439	2. 97	1. 22	44	. 88
4	. 907	. 284	. 258	2. 130	1. 264	. 314	2. 89	1. 47	(1)	(1)
5	. 981	. 229	. 224	2. 075	1. 160	. 320	2. 95	1. 23	59	. 67
Mean	1. 026	. 243	. 338	2. 074	1. 097	. 341	2. 99	1. 56	49	. 92
S.D.	. 091	. 041	. 093	. 034	. 113	. 055	. 08	. 43	7	. 24
C.V. (%)	9	17	28	2	10	16	3	28	14	26
Diet 8′:										
Subject 29:										
Period 6	. 989	. 202	. 260	2. 093	. 983	. 320	2. 26	1. 12	53	1. 23
7	1. 018	. 284	. 379	2. 307	. 866	. 376	2. 34	1. 11	57	1. 26
8	1. 008	. 231	. 331	2. 236	. 971	. 413	2. 54	. 95	53	1. 10
Mean	1. 005	. 239	. 323	2. 212	. 940	. 370	2. 38	1. 06	54	1. 20
S.D.	. 015	. 042	. 060	. 109	. 064	. 047	. 14	. 10	2	. 09
C.V. (%)	1	18	19	5	7	13	6	9	4	8

See footnotes at end of table, p. 96.

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1958										
EIGHT 6-DAY PERIODS										
VIRGINIA—Continued										
Diet 8:										
Subject 30:										
Period 1	1.102	0.179	0.454	2.053	0.926	0.560	3.02	1.73	47	0.51
2	1.009	.231	.428	2.040	.881	.535	3.11	1.59	47	.54
3	1.131	.280	.310	2.073	.836	.531	2.97	1.40	44	.90
4	.907	.289	.211	2.130	.881	.347	2.89	1.29	(1)	(1)
5	.981	.274	.144	2.075	1.170	.216	2.95	1.55	(1)	(1)
Mean	1.026	.251	.309	2.074	.939	.438	2.99	1.51	46	.65
S.D.	.091	.046	.134	.034	.133	.150	.08	.17	2	.22
C.V. (%)	9	18	43	2	14	34	3	11	4	34
Diet 8′:										
Subject 30:										
Period 6	.989	.179	.212	2.093	.784	.312	2.26	1.36	53	.93
7	1.018	.179	.167	2.307	.764	.383	2.34	1.11	57	.98
8	1.008	.179	.177	2.236	.709	.297	2.54	.94	53	.90
Mean	1.005	.179	.185	2.212	.752	.331	2.38	1.14	54	.94
S.D.	.015	.000	.024	.109	.039	.046	.14	.21	2	.04
C.V. (%)	1	0	13	5	5	14	6	18	4	4
Diet 8:										
Subject 31:										
Period 1	1.102	.224	.339	2.053	.926	.440	3.02	1.70	47	1.47
2	1.009	.284	.350	2.040	.864	.382	3.11	1.36	47	1.66
3	1.131	.373	.367	2.073	.873	.396	2.97	1.28	44	2.22
4	.907	.291	.271	2.130	.965	.418	2.89	1.28	52	1.41
5	.981	.316	.162	2.075	.988	.267	2.95	1.24	59	1.46
Mean	1.026	.298	.298	2.074	.923	.381	2.99	1.37	50	1.64
S.D.	.091	.054	.084	.034	.055	.067	.08	.19	6	.34
C.V. (%)	9	18	28	2	6	18	3	14	12	21
Diet 8′:										
Subject 31:										
Period 6	.989	.231	.255	2.093	1.028	.405	2.26	1.14	53	1.52
7	1.018	.231	.179	2.307	1.065	.397	2.34	.97	57	1.63
8	1.008	.179	.222	2.236	.965	.347	2.54	.87	53	1.56
Mean	1.005	.214	.219	2.212	1.019	.383	2.38	.99	54	1.57
S.D.	.015	.030	.038	.109	.051	.031	.14	.14	2	.06
C.V. (%)	1	14	17	5	5	8	6	14	4	4
Diet 8:										
Subject 32:										
Period 1	1.102	.264	.360	2.053	1.152	.515	3.02	1.75	47	1.10
2	1.009	.179	.540	2.040	.911	.514	3.11	1.39	47	1.18
3	1.131	.246	.333	2.073	.948	.470	2.97	1.46	44	1.49
4	.907	.129	.369	2.130	.971	.402	2.89	1.47	(1)	(1)
5	.981	.179	.141	2.075	1.182	.313	2.95	1.36	59	1.02
Mean	1.026	.199	.349	2.074	1.033	.443	2.99	1.49	49	1.20
S.D.	.091	.055	.142	.034	.125	.086	.08	.15	7	.21
C.V. (%)	9	28	41	2	12	19	3	10	14	18

See footnotes at end of table, p. 96.

ABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

ear, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1958										
EIGHT 6-DAY PERIODS										
IRGINIA—Continued										
Diet 8′:										
Subject 32:										
Period 6	0.989	0.192	0.188	2.093	1.063	0.347	2.26	1.27	53	1.55
7	1.018	.105	.120	2.307	.966	.316	2.34	1.24	57	1.15
8	1.008	.129	.171	2.236	.971	.310	2.54	1.02	53	1.26
Mean	1.005	.142	.160	2.212	1.000	.324	2.38	1.18	54	1.32
S.D	.015	.045	.035	.109	.055	.020	.14	.14	2	.21
C.V. (%)	1	32	22	5	6	6	6	12	4	16
Diet 8:										
Subject 33:										
Period 1	1.102	.207	.465	2.053	1.095	.642	3.02	1.84	47	2.08
2	1.009	.212	.384	2.040	.973	.473	3.11	1.51	47	1.20
3	1.131	.366	.457	2.073	1.000	.673	2.97	1.56	44	1.96
4	.907	.229	.333	2.130	.978	.413	2.89	1.48	52	.43
5	.981	.266	.282	2.075	.970	.380	2.95	1.44	59	1.61
Mean	1.026	.256	.384	2.074	1.003	.516	2.99	1.57	50	1.46
S.D	.091	.066	.079	.034	.053	.134	.08	.16	6	.67
C.V. (%)	9	26	21	2	5	26	3	10	12	46
Diet 8′:										
Subject 33:										
Period 6	.989	.361	.452	2.093	1.075	.492	2.26	1.20	53	1.90
7	1.018	.266	.392	2.307	1.070	.470	2.34	1.24	57	1.66
8	1.008	.249	.417	2.236	1.038	.495	2.54	1.08	53	1.47
Mean	1.005	.292	.420	2.212	1.061	.486	2.38	1.17	54	1.68
S.D	.015	.060	.030	.109	.020	.014	.14	.08	2	.22
C.V. (%)	1	21	7	5	2	3	6	7	4	13
Diet 8:										
Subject 34:										
Period 1	1.102	.284	.449	2.053	.891	.312	3.02	1.86	------	------
2	1.009	.244	.455	2.040	.889	.405	3.11	1.47	47	1.20
3	1.131	.465	.382	2.073	.971	.409	2.97	1.45	44	1.53
4	.907	.204	.205	2.130	.971	.282	2.89	1.44	(1)	(1)
5	.981	.301	.276	2.075	1.020	.372	2.95	1.34	(1)	(1)
Mean	1.026	.300	.353	2.074	.948	.356	2.99	1.51	46	1.36
S.D	.091	.100	.110	.034	.057	.057	.08	.20	2	.23
C.V. (%)	9	33	31	2	6	16	3	13	5	17
Diet 8′:										
Subject 34:										
Period 6	.989	.362	.351	2.093	.965	.314	2.26	1.30	53	1.68
7	1.018	.319	.362	2.307	.988	.401	2.34	1.13	57	1.42
8	1.008	.336	.407	2.236	1.030	.371	2.54	1.06	53	1.36
Mean	1.005	.339	.373	2.212	.994	.362	2.38	1.16	54	1.49
S.D	.015	.022	.030	.109	.033	.044	.14	.12	2	.17
C.V. (%)	1	6	8	5	3	12	6	10	4	11

ee footnotes at end of table, p. 96.

TABLE 14.—B VITAMINS: *Mean daily intake and output of thiamine, riboflavin, folic acid, and pantothenic acid for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Thiamine			Riboflavin			Pantothenic acid		Folic acid	
	Intake	Urine	Feces	Intake	Urine	Feces	Intake	Urine	Intake	Urine
1958										
EIGHT 6-DAY PERIODS										
VIRGINIA—Continued										
Diet 8:										
Subject 35:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*
Period 1	1. 102	0. 192	0. 641	2. 053	0. 903	0. 485	3. 02	1. 68	47	6. 90
2	1. 009	. 179	. 432	2. 040	1. 028	. 421	3. 11	1. 48	47	2. 40
3	1. 166	. 423	. 443	2. 093	. 907	. 433	3. 36	1. 33	44	1. 39
4	. 942	. 231	. 419	2. 150	. 928	. 524	3. 28	1. 46	52	1. 10
5	1. 016	. 189	. 308	2. 095	. 970	. 441	3. 34	1. 38	60	1. 16
Mean	1. 047	. 243	. 449	2. 086	. 947	. 461	3. 22	1. 47	50	2. 59
S.D	. 087	. 103	. 120	. 043	. 052	. 043	. 15	. 13	6	2. 47
C.V. (%)	8	42	27	2	5	9	5	9	13	95
Diet 8′:										
Subject 35:										
Period 6	. 989	. 256	. 313	2. 093	. 971	. 381	2. 26	1. 27	53	1. 44
7	1. 058	. 231	. 365	2. 475	. 971	. 528	2. 81	1. 18	58	1. 36
8	1. 083	. 204	. 383	2. 424	. 921	. 468	3. 40	1. 15	55	1. 29
Mean	1. 043	. 230	. 354	2. 331	. 954	. 459	2. 82	1. 20	55	1. 36
S.D	. 049	. 026	. 036	. 207	. 029	. 074	. 57	. 06	3	. 08
C.V. (%)	5	11	10	9	3	16	20	5	5	6
Diet 8:										
Subject 12:										
Period 1	------	------	------	------	------	------	------	------	------	------
2	------	------	------	------	------	------	------	------	------	------
3	------	------	------	------	------	------	------	------	------	------
4	. 907	. 314	. 369	2. 130	1. 045	. 494	2. 89	1. 72	52	1. 31
5	. 981	. 231	. 311	2. 075	1. 070	. 450	2. 95	2. 00	59	1. 65
Mean	. 944	. 272	. 340	2. 102	1. 058	. 472	2. 92	1. 86	56	1. 48
S.D	. 052	. 059	. 041	. 039	. 018	. 031	. 04	. 20	5	. 24
C.V. (%)	6	22	12	2	2	7	1	11	9	16
Diet 8′:										
Subject 12:										
Period 6	. 989	. 217	. 304	2. 093	. 946	. 450	2. 26	1. 40	53	2. 02
7	1. 018	. 217	. 306	2. 307	. 938	. 383	2. 34	1. 28	57	1. 88
8	1. 008	. 179	. 326	2. 236	1. 030	. 495	2. 54	1. 16	53	2. 43
Mean	1. 005	. 204	. 312	2. 212	. 971	. 443	2. 38	1. 28	54	2. 11
S.D	. 015	. 022	. 012	. 109	. 051	. 056	. 14	. 12	2	. 29
C.V. (%)	1	11	4	5	5	13	6	9	4	14
Diet 8 (12 subjects): [2]										
Mean	1. 028	0. 241	0. 338	2. 075	0. 981	0. 434	3. 01	1. 44	49	1. 41
S.D	. 082	. 062	. 102	. 032	. 104	. 094	. 10	. 27	5	. 93
C.V. (%)	8	26	31	2	11	22	3	19	11	66
Diet 8′ (12 subjects): [2]										
Mean	1. 008	. 234	. 304	2. 222	. 994	. 420	2. 42	1. 09	54	1. 41
S.D	. 020	. 057	. 087	. 105	. 103	. 079	. 22	. 14	2	. 25
C.V. (%)	2	24	29	5	10	19	9	13	4	18

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[1] Data omitted because subject was given medication that influenced urinary excretion of folic acid.

[2] Values for subject 12 not included.

Table 15.—VITAMIN B_{12}: *Mean daily intake and output for preadolescant girls in the 1958 metabolic study*

[Virginia; four 6-day periods; periods 1, 3, 5, diet 8; period 8, diet 8′]

Subject and period	Intake	Urine
	Mcg.	*Mcg.*
Subject 24:		
Period 1	1.13	0.08
3	1.11	.04
5	1.15	.03
8	.68	.03
Subject 25:		
Period 1	1.13	.04
3	1.11	.04
5	1.15	.03
8	.68	.03
Subject 26:		
Period 1	1.13	.06
3	1.11	.03
5	1.15	.03
8	.68	.03
Subject 27:		
Period 1	1.13	.22
3	1.11	[1] .03
5	1.15	.02
8	.68	.02
ubject 28:		
Period 1	1.13	.19
3	1.11	.03
5	1.15	[1] .24
8	.68	.03
ubject 29:		
Period 1	1.13	.09
3	1.11	.03
5	1.15	(2)
8	.68	.02
ubject 30:		
Period 1	1.13	.11
3	1.11	.02
5	1.15	(2)
8	.68	[1] .01
Subject 31:		
Period 1	1.13	[1] .17
3	1.11	.03
5	1.15	.02
8	.68	.02
Subject 32:		
Period 1	1.13	.09
3	1.11	.03
5	1.15	(2)
8	.68	[1] .02
Subject 33:		
Period 1	1.13	.05
3	1.11	.02
5	1.15	.02
8	.68	.02
Subject 34:		
Period 1	1.13	[1] .41
3	1.11	.02
5	1.15	(2)
8	.68	.02
Subject 35:		
Period 1	1.13	.06
3	[3] 1.48	.04
5	[3] 1.52	.04
8	[3] 1.51	.02
12 subjects:		
Mean	1.05	.06
S.D	.22	.08
C.V. (%)	21	127

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[1] Urine samples were contaminated with small amounts of feces.

[2] No *L. leichmannii* activity; subjects received cosatetracyn during period 4 or period 5 or both.

[3] Subject 35 received an additional 100 g. skim milk daily.

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*

[1954, 1956—alternate periods; 1958—all periods]

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methyl-nicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1954									
SIXTEEN 4-DAY PERIODS									
TENNESSEE:									
Diet 1:									
Subject 1:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	11. 46	668	22. 59	2. 27	9. 90	0. 31	10. 36	3. 82	9. 50
4	11. 51	720	23. 51	2. 46	11. 30	. 28	11. 62	6. 20	10. 00
6	11. 64	777	24. 59	1. 99	8. 20	. 24	8. 66	4. 26	7. 80
8	11. 59	768	24. 39	2. 46	11. 70	. 41	12. 09	6. 46	11. 40
10	10. 77	746	23. 20	3. 06	8. 20	. 24	9. 61	4. 94	9. 40
12	9. 40	704	21. 13	2. 77	10. 90	. 31	11. 61	5. 49	11. 75
14	7. 41	732	19. 61	3. 05	11. 20	. 32	12. 12	6. 30	11. 50
16	9. 88	754	22. 45	2. 98	9. 30	. 29	10. 48	5. 51	10. 60
Mean	10. 46	734	22. 68	2. 63	10. 09	. 30	10. 82	5. 37	10. 24
S.D	1. 49	36	1. 67	. 40	1. 40	. 06	1. 26	. 97	1. 34
C.V. (%)	14	5	7	15	14	19	12	18	13
Diet 1:									
Subject 2:									
Period 2	11. 46	668	22. 59	2. 27	7. 00	. 21	7. 91	3. 32	7. 50
4	11. 51	720	23. 51	2. 56	6. 50	. 18	7. 74	3. 55	6. 45
6	11. 64	777	24. 59	2. 84	10. 40	. 29	11. 25	4. 18	10. 50
8	11. 59	768	24. 39	3. 52	8. 90	. 24	10. 60	4. 28	9. 75
10	10. 77	746	23. 20	3. 79	12. 10	. 25	13. 44	5. 10	7. 95
12	11. 20	652	22. 07	2. 45	6. 20	. 24	7. 46	4. 94	5. 10
14	10. 20	256	14. 47	1. 68	8. 20	. 19	8. 33	5. 35	3. 38
16	11. 01	678	22. 31	2. 92	12. 10	. 27	12. 68	6. 20	7. 75
Mean	11. 17	658	22. 14	2. 75	8. 92	. 23	9. 93	4. 62	7. 30
S.D	. 50	169	3. 23	. 68	2. 39	. 04	2. 38	. 96	2. 32
C.V. (%)	4	26	15	25	27	17	24	21	32
Diet 1:									
Subject 3:									
Period 2	---	---	---	---	---	---	---	---	---
4	8. 88	592	18. 75	4. 42	6. 90	. 25	9. 79	5. 41	8. 10
6	11. 64	777	24. 59	2. 83	9. 20	. 30	10. 28	4. 48	10. 50
8	9. 27	614	19. 50	4. 30	10. 00	. 25	12. 20	4. 92	8. 15
10	9. 69	671	20. 87	3. 98	8. 70	. 32	10. 93	4. 80	7. 07
12	9. 40	704	21. 13	3. 68	7. 00	. 24	9. 20	5. 10	8. 80
14	7. 41	732	19. 61	2. 95	11. 70	. 33	12. 45	5. 16	10. 50
16	5. 08	414	11. 98	2. 61	9. 30	. 24	10. 10	2. 43	8. 10
Mean	8. 77	643	19. 49	3. 54	8. 97	. 27	10. 71	4. 61	8. 75
S.D	2. 05	120	3. 82	. 74	1. 68	. 04	1. 22	1. 01	1. 30
C.V. (%)	23	19	20	21	19	15	11	22	15

Table 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methylnicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1954									
SIXTEEN 4-DAY PERIODS									
Tennessee—Continued									
Diet 1:									
Subject 4:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	11.46	668	22.59	4.76	8.90	0.34	11.81	5.96	11.50
4	11.51	720	23.51	5.04	10.80	.32	13.58	6.96	9.90
6	11.64	777	24.59	4.95	7.20	.31	10.57	6.54	11.10
8	11.59	768	24.39	4.75	10.70	.40	13.32	6.83	11.00
10	10.77	746	23.20	4.68	9.40	.36	12.16	6.89	10.70
12	9.40	704	21.13	3.64	12.20	.36	13.50	8.06	8.80
14	7.41	732	19.61	3.45	7.90	.34	9.82	6.27	10.50
16	9.88	754	22.45	2.80	9.60	.35	10.63	6.70	10.10
Mean	10.46	734	22.68	4.26	9.59	.35	11.93	6.78	10.45
S.D.	1.49	36	1.67	.84	1.63	.03	1.47	.62	.85
C.V. (%)	14	5	7	20	17	8	12	9	8
Diet 1:									
Subject 5:									
Period 2	11.46	668	22.59	2.43	8.60	.41	9.55	5.81	7.75
4	11.51	720	23.51	2.34	9.80	.29	10.32	5.89	7.05
6	11.64	777	24.59	1.57	9.30	.26	9.19	4.23	5.85
8	11.59	768	24.39	3.12	10.40	.30	11.51	5.16	9.90
10	10.77	746	23.20	2.47	8.40	.21	9.23	5.14	5.50
12	9.40	704	21.13	3.12	12.50	.33	13.24	7.29	10.40
14	6.71	581	16.39	2.32	11.90	.34	12.05	6.44	10.10
16	9.78	721	21.80	3.94	13.30	.26	14.55	5.89	6.70
Mean	10.36	711	22.20	2.66	10.52	.30	11.21	5.73	7.91
S.D.	1.71	63	2.63	.71	1.84	.06	1.99	.92	1.97
C.V. (%)	17	9	12	27	17	20	18	16	25
Diet 1:									
Subject 6:									
Period 2	11.46	668	22.59	2.56	9.20	.32	10.06	5.63	8.55
4	11.51	720	23.51	3.94	10.40	.30	12.24	4.50	8.55
6	11.64	777	24.59	3.62	8.40	.35	10.40	3.92	9.15
8	11.59	768	24.39	3.11	11.90	.12	12.54	2.79	7.85
10	10.77	746	23.20	2.83	10.70	.25	11.45	5.08	10.10
12	9.40	704	21.13	3.79	8.10	.46	10.41	5.73	10.60
14	7.41	732	19.61	2.08	6.40	.12	7.18	3.12	5.80
16	9.88	754	22.45	3.32	10.70	.30	11.94	5.16	9.60
Mean	10.46	734	22.68	3.16	9.48	.28	10.78	4.49	8.78
S.D.	1.49	36	1.67	.64	1.79	.11	1.72	1.12	1.50
C.V. (%)	14	5	7	20	19	40	16	25	17
6 subjects (Tenn.)									
Mean	10.31	703	22.03	3.16	9.61	.29	10.90	5.28	8.91
S.D.	1.60	94	2.65	.85	1.81	.07	1.75	1.21	1.93
C.V. (%)	15	13	12	27	19	24	16	23	22

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methylnicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1954									
SIXTEEN 4-DAY PERIODS									
LOUISIANA:									
Diet 1:									
Subject 7:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	---	---	---	---	---	---	---	---	---
4	10.07	836	24.00	2.84	10.10	0.30	11.02	4.00	6.30
6	10.22	780	23.22	3.75	10.10	.27	11.80	5.74	6.20
8	10.84	829	24.66	3.60	12.70	.28	13.78	5.04	6.95
10	10.45	856	24.72	2.42	12.00	.28	12.16	5.22	5.20
12	10.89	850	25.06	3.90	14.70	.28	15.66	4.70	7.05
14	9.83	827	23.61	2.78	11.60	.34	12.21	5.25	6.80
16	11.20	848	25.33	2.74	10.30	.29	11.08	4.35	5.40
Mean	10.50	832	24.37	3.15	11.64	.29	12.53	4.90	6.27
S.D	.50	26	.78	.59	1.69	.02	1.66	.59	.74
C.V. (%)	5	3	3	19	15	8	13	12	12
Diet 1:									
Subject 8:									
Period 2	11.06	885	25.81	2.98	12.40	.42	13.12	6.30	13.20
4	10.07	836	24.00	2.71	8.12	.33	9.33	5.04	12.90
6	10.22	780	23.22	2.65	7.05	.32	8.40	4.48	12.20
8	10.84	829	24.66	3.17	9.20	.30	10.58	4.85	12.60
10	10.45	856	24.72	3.45	9.70	.31	11.25	4.83	11.80
12	10.89	850	25.06	2.79	9.95	.31	10.86	4.76	13.30
14	9.83	827	23.61	3.01	12.50	.32	13.13	6.29	13.70
16	11.20	848	25.33	2.46	11.60	.31	11.90	3.64	12.50
Mean	10.57	839	24.55	2.90	10.06	.33	11.08	5.02	12.78
S.D	.50	30	.88	.32	1.98	.04	1.68	.89	.62
C.V. (%)	5	4	4	11	20	12	15	18	5
Diet 1:									
Subject 9:									
Period 2	11.06	885	25.81	3.56	12.60	.29	13.67	4.79	9.80
4	10.07	836	24.00	2.90	10.00	.27	10.96	7.20	10.10
6	10.22	780	23.22	3.38	11.70	.28	12.78	5.64	9.80
8	10.84	829	24.66	3.38	8.85	.25	10.44	4.92	8.10
10	10.45	856	24.72	3.63	13.90	.25	14.76	4.17	9.80
12	10.89	850	25.06	4.32	15.60	.19	16.69	4.51	9.90
14	9.83	827	23.61	2.26	15.80	.29	15.10	12.00	10.00
16	11.20	848	25.33	4.04	16.90	.34	17.63	6.60	10.00
Mean	10.57	839	24.55	3.43	13.17	.27	14.01	6.23	9.69
S.D	.50	30	.88	.64	2.89	.04	2.55	2.55	.65
C.V. (%)	5	4	4	19	22	16	18	41	7
Diet 1:									
Subject 10:									
Period 2	11.06	885	25.81	2.65	8.20	.26	9.27	4.90	6.90
4	10.07	836	24.00	1.94	9.40	.38	9.72	4.45	7.10
6	10.22	780	23.22	2.12	6.90	.28	7.76	4.56	6.20
8	10.84	829	24.66	2.50	6.50	.25	7.75	4.85	7.70
10	---	---	---	---	---	---	---	---	---
12	10.89	850	25.06	2.47	12.90	.21	12.87	5.99	7.35
14	9.83	827	23.61	3.22	10.40	.32	11.62	6.73	7.80
16	11.20	848	25.33	2.35	9.50	.31	10.11	4.22	7.05
Mean	10.59	836	24.53	2.46	9.11	.29	9.88	5.10	7.16
S.D	.54	32	.95	.41	2.19	.06	1.89	.92	.54
C.V. (%)	5	4	4	17	24	20	19	18	8

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methylnicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1954									
SIXTEEN 4-DAY PERIODS									
LOUISIANA—Continued									
Diet 1:									
Subject 11:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	11. 06	885	25. 81	3. 90	11. 50	0. 32	13. 12	8. 12	7. 80
4	10. 07	836	24. 00	2. 84	12. 80	. 35	13. 26	5. 42	8. 00
6	10. 22	780	23. 22	6. 02	13. 40	. 32	16. 56	4. 63	9. 20
8	10. 84	829	24. 66	5. 39	11. 70	. 34	14. 64	4. 76	9. 80
10	10. 45	856	24. 72	5. 15	14. 50	. 32	16. 68	5. 45	9. 70
12	10. 89	850	25. 06	5. 15	15. 80	. 32	17. 72	4. 96	8. 80
14	9. 83	827	23. 61	4. 74	15. 40	. 31	17. 02	4. 65	10. 10
16	11. 20	848	25. 33	3. 69	14. 30	. 28	15. 16	3. 98	8. 60
Mean	10. 57	839	24. 55	4. 61	13. 68	. 32	15. 53	5. 25	9. 00
S.D	. 50	30	. 88	1. 05	1. 61	. 02	1. 74	1. 25	. 85
C.V. (%)	5	4	4	23	12	7	11	24	9
5 subjects (La.):									
Mean	10. 56	837	24. 51	3. 34	11. 53	. 30	12. 67	5. 32	9. 10
S.D	. 47	28	. 83	. 96	2. 62	. 04	2. 75	1. 46	2. 38
C.V. (%)	5	3	3	29	23	14	22	27	26
11 subjects in 1954:									
Mean	10. 42	763	23. 14	3. 24	10. 47	0. 29	11. 69	5. 30	8. 99
S.D	1. 23	98	2. 38	. 90	2. 39	. 06	2. 40	1. 32	2. 13
C.V. (%)	12	13	10	28	23	20	21	25	24
1956									
FOURTEEN 4-DAY PERIODS									
VIRGINIA:									
Diet 2:									
Subject 12:									
Period 2	8. 20	557	17. 48	2. 22	4. 64	0. 19	5. 93	4. 35	4. 20
4	7. 40	556	16. 67	2. 63	5. 48	. 18	6. 97	3. 37	4. 24
6	7. 80	575	17. 38	3. 12	5. 69	. 17	7. 57	4. 05	5. 42
8	5. 50	394	12. 07	1. 50	4. 51	. 14	5. 14	8. 77	3. 74
10	8. 20	541	17. 22	3. 63	2. 12	. 28	5. 26	5. 37	4. 86
12	7. 40	568	16. 87	1. 33	4. 16	. 14	4. 70	3. 43	3. 02
14	8. 00	558	17. 30	1. 33	3. 10	. 15	3. 85	5. 05	4. 25
Mean	7. 50	536	16. 43	2. 25	4. 24	. 18	5. 64	4. 91	4. 25
S.D	. 94	63	1. 94	. 92	1. 27	. 05	1. 29	1. 86	. 77
C.V. (%)	13	12	12	41	30	27	23	38	18
Diet 2:									
Subject 13:									
Period 2	8. 20	557	17. 48	3. 86	8. 01	. 23	10. 17	7. 78	5. 84
4	7. 40	556	16. 67	2. 13	3. 31	. 15	4. 74	5. 41	3. 85
6	7. 80	575	17. 38	5. 25	8. 74	. 27	12. 05	4. 88	7. 62
8	7. 30	601	17. 32	3. 05	4. 70	. 18	6. 72	5. 37	3. 96
10	8. 20	541	17. 22	4. 11	8. 91	. 16	11. 06	6. 05	4. 84
12	7. 40	568	16. 87	5. 10	4. 31	. 24	8. 30	6. 45	6. 24
14	8. 00	558	17. 30	3. 62	5. 20	. 17	7. 63	4. 96	5. 58
Mean	7. 76	565	17. 18	3. 87	6. 17	. 20	8. 67	5. 84	5. 42
S.D	. 39	19	. 29	1. 10	2. 32	. 05	2. 58	1. 02	1. 33
C.V. (%)	5	3	2	28	38	23	30	17	25

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methyl-nicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1956									
FOURTEEN 4-DAY PERIODS									
VIRGINIA—Continued									
Diet 2:									
Subject 14:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	8. 20	557	17. 48	1. 33	1. 02	0. 12	2. 14	1. 98	4. 35
4	7. 40	556	16. 67	. 99	1. 72	. 14	2. 42	2. 36	4. 14
6	7. 80	575	17. 38	1. 82	1. 94	. 14	3. 34	1. 94	4. 88
8	7. 30	601	17. 32	1. 08	1. 72	. 12	2. 48	1. 97	3. 64
10	8. 20	541	17. 22	2. 50	3. 68	. 17	5. 39	3. 45	6. 00
12	7. 40	568	16. 87	2. 08	1. 58	. 13	3. 28	2. 03	6. 07
14	8. 00	558	17. 30	2. 50	3. 97	. 19	5. 64	2. 98	5. 76
Mean	7. 76	565	17. 18	1. 76	2. 23	. 14	3. 53	2. 39	4. 98
S.D	. 39	19	. 29	. 64	1. 13	. 02	1. 43	. 60	. 98
C.V. (%)	5	3	2	36	51	17	41	25	20
3 subjects on diet 2:									
Mean	7. 67	555	16. 93	2. 63	4. 21	. 17	5. 94	4. 38	4. 88
S.D	. 61	40	1. 15	1. 26	2. 28	. 05	2. 79	1. 92	1. 11
C.V. (%)	8	7	7	48	54	27	47	44	23
Diet 3:									
Subject 15:									
Period 2	10. 20	871	24. 72	1. 90	3. 97	0. 17	5. 08	3. 08	4. 91
4	9. 80	878	24. 43	1. 49	6. 97	. 17	7. 15	3. 00	4. 42
6	9. 80	849	23. 95	1. 90	3. 29	. 16	4. 52	2. 68	4. 54
8	9. 90	838	23. 87	2. 40	4. 63	. 18	6. 08	3. 12	4. 81
10	9. 30	858	23. 60	4. 40	10. 22	. 29	12. 51	4. 56	7. 64
12	10. 60	833	24. 48	3. 50	7. 04	. 26	9. 10	4. 06	6. 57
14	9. 90	863	24. 28	2. 84	8. 14	. 25	9. 39	3. 70	6. 41
Mean	9. 93	856	24. 19	2. 63	6. 32	. 21	7. 69	3. 46	5. 61
S.D	. 40	17	. 40	1. 03	2. 48	. 06	2. 83	. 67	1. 25
C.V. (%)	4	2	2	39	39	26	37	19	22
Diet 3:									
Subject 16:									
Period 2	10. 20	871	24. 72	3. 62	11. 94	. 28	13. 19	4. 76	9. 62
4	9. 80	878	24. 43	2. 40	8. 12	. 17	8. 89	3. 16	6. 58
6	9. 80	849	23. 95	1. 81	6. 83	. 11	7. 26	2. 22	4. 14
8	9. 90	838	23. 87	2. 16	13. 47	. 16	13. 00	3. 50	6. 25
10	9. 30	858	23. 60	2. 58	16. 86	. 21	16. 16	4. 01	6. 81
12	10. 60	833	24. 48	3. 03	13. 96	. 22	14. 23	3. 89	6. 64
14	9. 90	863	24. 28	1. 81	7. 92	. 14	8. 17	2. 96	4. 41
Mean	9. 93	856	24. 19	2. 49	11. 30	. 18	11. 56	3. 50	6. 35
S.D	. 40	17	. 40	. 66	3. 76	. 06	3. 42	. 82	1. 81
C.V. (%)	4	2	2	27	33	30	30	23	29

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methylnicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1956									
FOURTEEN 4-DAY PERIODS									
VIRGINIA—Continued									
Diet 3:									
Subject 17:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	--------	--------	--------	--------	--------	--------	--------	--------	--------
4	--------	--------	--------	--------	--------	--------	--------	--------	--------
6	9.80	849	23.95	4.14	10.84	0.23	12.71	4.82	6.28
8	9.90	838	23.87	4.47	7.18	.26	10.08	3.90	7.26
10	9.30	858	23.60	3.71	6.02	.24	8.44	4.06	5.25
12	10.60	833	24.48	3.88	5.78	.24	8.40	4.72	5.88
14	9.90	863	24.28	4.30	4.84	.23	8.01	4.06	6.25
Mean	9.90	848	24.04	4.10	6.93	.24	9.53	4.31	6.18
S.D	.46	13	.35	.31	2.34	.01	1.95	.42	.73
C.V. (%)	5	2	1	8	34	5	20	10	12
3 subjects on diet 3:									
Mean	9.92	854	24.15	2.97	8.32	.21	9.60	3.70	6.04
S.D	.39	15	.37	1.00	3.68	.05	3.22	.75	1.36
C.V. (%)	4	2	2	34	44	24	34	20	22
Diet 4:									
Subject 18:									
Period 2	9.50	658	20.47	4.56	4.92	0.29	8.36	6.49	5.78
4	8.70	709	20.52	3.94	2.64	.23	5.90	4.25	5.26
6	9.20	671	20.38	1.96	2.18	.15	3.67	3.90	3.72
8	9.40	666	20.50	1.42	4.38	.20	5.01	3.34	4.06
10	10.20	678	21.50	3.61	4.84	.28	7.44	4.97	6.82
12	8.60	670	19.77	3.45	7.75	.29	9.65	5.35	7.70
14	9.30	642	20.00	2.51	8.60	.22	9.43	4.39	6.16
Mean	9.27	671	20.45	3.06	5.04	.24	7.07	4.67	5.64
S.D	.53	21	.54	1.13	2.40	.05	2.28	1.04	1.43
C.V. (%)	6	3	3	37	48	22	32	22	25
Diet 4:									
Subject 19:									
Period 2	9.50	658	20.47	2.11	9.04	.30	9.50	4.30	7.16
4	8.70	709	20.52	1.33	3.22	.19	3.98	3.45	5.32
6	9.20	671	20.38	2.34	5.20	.23	6.54	3.70	6.59
8	9.40	666	20.50	1.41	2.56	.15	3.48	2.74	4.78
10	10.20	678	21.50	2.59	3.88	.27	5.73	8.19	7.90
12	8.60	670	19.77	2.82	12.80	.32	13.21	9.37	6.02
14	9.30	642	20.00	3.68	10.00	.29	11.68	9.48	7.08
Mean	9.27	671	20.45	2.33	6.67	.25	7.74	5.94	6.41
S.D	.53	21	.54	.82	3.94	.06	3.79	3.06	1.10
C.V. (%)	6	3	3	35	59	25	49	52	17

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methylnicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1956									
FOURTEEN 4-DAY PERIODS									
VIRGINIA—Continued									
Diet 4:									
Subject 20:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	9.50	658	20.47	3.13	7.62	0.40	9.37	12.03	9.02
4	8.70	709	20.52	3.28	8.46	.31	10.09	6.78	6.59
6	9.20	671	20.38	2.12	4.93	.19	6.08	4.26	4.96
8	7.70	598	17.67	3.21	6.18	.23	8.11	8.61	5.11
10	10.20	678	21.50	2.04	6.18	.22	7.05	6.72	8.85
12	8.60	670	19.77	1.72	3.42	.41	4.72	3.27	8.60
14	9.30	642	20.00	1.80	5.15	.21	5.99	4.66	7.41
Mean	9.03	661	20.04	2.47	5.99	.28	7.35	6.62	7.22
S.D.	.79	34	1.18	.70	1.70	.09	1.94	3.00	1.72
C.V. (%)	9	5	6	28	28	33	26	45	24
3 subjects on diet 4:									
Mean	9.19	667	20.31	2.57	5.90	.26	7.38	5.73	6.42
S.D.	.61	25	.80	.88	2.78	.07	2.66	2.52	1.52
C.V. (%)	7	4	4	34	47	27	36	44	24
Diet 5:									
Subject 21:									
Period 2	10.50	865	24.92	2.20	7.82	0.39	8.69	4.39	12.36
4	11.20	916	26.47	1.49	3.53	.32	4.52	3.64	10.55
6	10.00	848	24.13	2.91	6.98	.34	8.60	3.67	11.88
8	11.60	888	26.40	3.40	5.24	.24	7.54	2.18	10.75
10	10.00	902	25.03	3.28	6.91	.38	8.90	4.04	8.84
12	10.40	892	25.27	2.05	5.58	.40	6.75	4.79	9.96
14	11.00	861	25.35	1.84	5.06	.22	5.96	2.46	7.33
Mean	10.67	882	25.37	2.45	5.87	.33	7.28	3.60	10.24
S.D.	.61	24	.83	.74	1.46	.07	1.64	.96	1.73
C.V. (%)	6	3	3	30	25	21	23	27	17
Diet 5:									
Subject 22:									
Period 2	10.50	865	24.92	3.68	2.97	.28	5.98	2.07	6.38
4	11.20	916	26.47	2.45	5.58	.17	6.88	2.16	3.65
6	10.00	848	24.13	2.70	5.23	.30	6.95	3.62	3.16
8	11.60	888	26.40	1.53	6.97	.37	7.38	4.24	4.30
10	10.00	902	25.03	2.97	5.07	.30	7.06	3.89	4.11
12	10.40	892	25.27	2.45	6.58	.31	7.83	2.07	3.60
14	11.00	861	25.35	1.13	9.40	.30	8.92	2.82	3.68
Mean	10.67	882	25.37	2.42	5.97	.29	7.29	2.98	4.13
S.D.	.61	24	.83	.86	1.99	.06	.91	.93	1.06
C.V. (%)	6	3	3	36	33	21	12	31	26

Table 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methylnicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1956									
FOURTEEN 4-DAY PERIODS									
Virginia—Continued									
Diet 5:									
Subject 23:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 2	10. 50	865	24. 92	2. 76	6. 08	0. 36	7. 76	3. 27	9. 29
4	11. 20	916	26. 47	1. 90	8. 95	. 36	9. 30	1. 90	10. 60
6	10. 00	848	24. 13	. 92	4. 69	. 16	4. 78	1. 72	5. 15
8	11. 60	888	26. 40	1. 12	11. 40	. 26	10. 48	2. 70	8. 48
10	10. 00	902	25. 03	2. 67	4. 92	. 32	6. 68	3. 11	11. 08
12	10. 40	892	25. 27	1. 23	10. 10	. 40	9. 68	1. 66	10. 50
14	11. 00	861	25. 35	3. 39	9. 40	. 31	10. 95	3. 23	10. 06
Mean	10. 67	882	25. 37	2. 00	7. 93	. 31	8. 52	2. 51	9. 31
S.D	. 61	24	. 83	. 96	2. 67	. 08	2. 22	. 73	2. 03
C.V. (%)	6	3	3	48	34	25	26	29	22
3 subjects on diet 5:									
Mean	10. 67	882	25. 37	2. 29	6. 61	. 31	7. 69	3. 03	7. 89
S.D	. 58	23	. 79	. 84	2. 21	. 07	1. 70	. 95	3. 17
C.V. (%)	5	3	3	37	33	22	22	31	40
12 subjects in 1956:									
Mean	9. 35	737	21. 63	2. 61	6. 21	0. 24	7. 61	4. 22	6. 31
S.D	1. 25	139	3. 46	1. 02	3. 09	. 08	2. 89	1. 96	2. 23
C.V. (%)	13	19	16	39	50	32	38	47	35
1958									
EIGHT 6-DAY PERIODS									
Virginia:									
Diet 8:									
Subject 24:									
Period 1	12. 15	197	15. 43	1. 36	3. 92	0. 26	4. 65	3. 34	5. 46
2	12. 52	173	15. 40	1. 98	4. 80	. 26	5. 92	3. 17	5. 52
3	12. 46	197	15. 74	2. 13	4. 19	. 28	5. 58	3. 12	6. 14
4	12. 22	174	15. 12	2. 53	4. 16	. 30	5. 94	2. 94	4. 70
5	13. 12	197	16. 40	3. 15	6. 23	. 32	8. 19	3. 23	5. 77
Mean	12. 49	188	15. 62	2. 23	4. 66	. 28	6. 06	3. 16	5. 52
S.D	. 38	13	. 49	. 66	. 94	. 03	1. 30	. 15	. 53
C.V. (%)	3	7	3	30	20	9	21	5	10
Diet 8′:									
Subject 24:									
Period 6	12. 34	125	14. 42	3. 10	3. 84	. 32	6. 21	3. 13	4. 10
7	12. 07	150	14. 57	3. 05	5. 50	. 28	7. 47	2. 17	5. 18
8	12. 03	138	14. 33	3. 00	5. 39	. 28	7. 33	2. 38	4. 80
Mean	12. 15	138	14. 44	3. 05	4. 91	. 29	7. 01	2. 56	4. 69
S.D	. 17	13	. 12	. 05	. 93	. 02	. 69	. 50	. 55
C.V. (%)	1	9	1	2	19	8	10	20	12

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methyl-nicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1958									
EIGHT 6-DAY PERIODS									
VIRGINIA—Continued									
Diet 8:									
Subject 25:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	12. 15	197	15. 43	2. 05	4. 10	0. 24	5. 40	1. 59	8. 03
2	12. 52	173	15. 40	2. 97	4. 56	. 25	6. 60	3. 41	6. 72
3	12. 46	197	15. 74	3. 20	5. 97	. 25	7. 95	2. 14	5. 83
4	12. 22	174	15. 12	3. 98	5. 87	. 26	8. 58	1. 70	6. 54
5	13. 12	197	16. 40	3. 81	5. 11	. 26	7. 81	1. 84	6. 31
Mean	12. 49	188	15. 62	3. 20	5. 12	. 25	7. 27	2. 14	6. 69
S.D	. 38	13	. 49	. 77	. 81	. 01	1. 27	. 74	. 82
C.V. (%)	3	7	3	24	16	3	17	35	12
Diet 8′:									
Subject 25:									
Period 6	12. 34	125	14. 42	3. 30	4. 98	. 28	7. 27	1. 66	4. 94
7	12. 07	150	14. 57	5. 03	4. 19	. 25	8. 15	1. 98	4. 25
8	12. 03	138	14. 33	4. 06	5. 15	. 26	8. 07	1. 84	3. 46
Mean	12. 15	138	14. 44	4. 13	4. 77	. 26	7. 84	1. 83	4. 22
S.D	. 17	13	. 12	. 87	. 51	. 02	. 49	. 16	. 74
C.V. (%)	1	9	1	21	11	6	6	9	18
Diet 8:									
Subject 26:									
Period 1	12. 15	197	15. 43	1. 60	2. 28	. 28	3. 56	3. 95	9. 85
2	12. 50	172	15. 37	1. 36	4. 92	. 30	5. 50	3. 69	9. 40
3	12. 35	194	15. 58	2. 02	2. 97	. 30	4. 51	3. 69	9. 04
4	11. 78	163	14. 50	2. 02	3. 24	. 32	4. 75	3. 43	8. 12
5	12. 68	192	15. 88	2. 37	4. 51	. 35	6. 13	3. 75	8. 73
Mean	12. 29	184	15. 35	1. 87	3. 58	. 31	4. 89	3. 70	9. 03
S.D	. 35	15	. 52	. 40	1. 10	. 03	. 98	. 19	. 66
C.V. (%)	3	8	3	21	31	8	20	5	7
Diet 8′:									
Subject 26:									
Period 6	12. 09	121	14. 11	2. 22	4. 22	. 34	5. 74	3. 66	8. 52
7	11. 47	144	13. 87	2. 22	4. 75	. 35	6. 18	3. 29	8. 43
8	11. 57	135	13. 82	3. 03	3. 88	. 34	6. 20	3. 70	8. 72
Mean	11. 71	133	13. 93	2. 49	4. 28	. 34	6. 04	3. 55	8. 56
S.D	. 33	12	. 16	. 47	. 44	. 01	. 26	. 23	. 15
C.V. (%)	3	9	1	19	10	2	4	6	2
Diet 8:									
Subject 27:									
Period 1	12. 15	197	15. 43	2. 70	5. 50	. 28	7. 15	4. 76	8. 01
2	12. 52	173	15. 40	3. 14	6. 01	. 25	7. 93	5. 53	7. 41
3	12. 46	197	15. 74	3. 03	4. 84	. 35	6. 99	5. 73	6. 89
4	12. 22	174	15. 12	3. 30	5. 07	. 37	7. 43	4. 94	6. 06
5	13. 12	197	16. 40	3. 57	5. 55	. 21	7. 90	4. 36	6. 24
Mean	12. 49	188	15. 62	3. 15	5. 39	. 29	7. 48	5. 06	6. 92
S.D	. 38	13	. 49	. 32	. 45	. 07	. 43	. 56	. 81
C.V. (%)	2	7	3	10	8	23	6	11	12

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methyl-nicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1958									
EIGHT 6-DAY PERIODS									
VIRGINIA—Continued									
Diet 8′:									
Subject 27:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 6	12. 34	125	14. 42	2. 92	5. 42	0. 27	7. 27	5. 32	6. 01
7	12. 07	150	14. 57	2. 39	4. 84	. 49	6. 55	5. 66	5. 69
8	12. 03	138	14. 33	2. 33	5. 03	. 51	6. 67	5. 64	5. 50
Mean	12. 15	138	14. 44	2. 55	5. 10	. 42	6. 84	5. 54	5. 73
S.D.	. 17	13	. 12	. 32	. 30	. 13	. 39	. 19	. 26
C.V. (%)	1	9	1	13	6	31	6	3	5
Diet 8:									
Subject 28:									
Period 1	12. 15	197	15. 43	1. 46	4. 22	. 20	4. 92	2. 07	5. 96
2	12. 52	173	15. 40	2. 02	6. 83	. 24	7. 58	2. 02	5. 44
3	12. 46	197	15. 74	1. 96	5. 33	. 20	6. 27	1. 79	5. 23
4	12. 05	166	14. 82	1. 96	4. 97	. 21	5. 99	1. 92	5. 29
5	13. 12	197	16. 40	2. 12	7. 36	. 28	8. 13	2. 85	6. 51
Mean	12. 46	186	15. 56	1. 90	5. 74	. 23	6. 58	2. 13	5. 69
S.D.	. 42	15	. 58	. 26	1. 31	. 03	1. 28	. 42	. 54
C.V. (%)	3	8	4	14	23	15	19	20	9
Diet 8′:									
Subject 28:									
Period 6	12. 34	125	14. 42	2. 12	7. 13	. 24	7. 91	2. 16	4. 78
7	11. 96	147	14. 41	1. 92	6. 30	. 24	7. 06	2. 16	4. 54
8	11. 82	138	14. 12	3. 17	6. 29	. 26	8. 19	1. 84	3. 72
Mean	12. 04	137	14. 32	2. 40	6. 57	. 25	7. 72	2. 05	4. 35
S.D.	. 27	11	. 17	. 67	. 48	. 01	. 59	. 18	. 56
C.V. (%)	2	8	1	28	7	5	8	9	13
Diet 8:									
Subject 29									
Period 1	12. 15	197	15. 43	1. 00	4. 99	. 32	5. 26	7. 06	8. 46
2	12. 52	173	15. 40	1. 19	3. 69	. 24	4. 30	4. 65	8. 75
3	12. 46	197	15. 74	3. 03	5. 44	. 29	7. 41	4. 63	7. 14
4	12. 22	174	15. 12	2. 33	4. 64	. 22	6. 06	4. 66	8. 55
5	13. 12	197	16. 40	3. 46	8. 96	. 17	10. 52	3. 64	6. 83
Mean	12. 49	188	15. 62	2. 20	5. 54	. 25	6. 71	4. 93	7. 95
S.D.	. 38	13	. 49	1. 09	2. 02	. 06	2. 42	1. 27	. 89
C.V. (%)	3	7	3	50	36	24	36	26	11
Diet 8′:									
Subject 29:									
Period 6	12. 34	125	14. 42	2. 87	6. 25	. 10	7. 73	3. 28	6. 04
7	12. 07	150	14. 57	3. 14	5. 95	. 14	7. 77	4. 72	6. 30
8	12. 03	138	14. 33	2. 76	3. 87	. 14	5. 75	3. 10	5. 89
Mean	12. 15	138	14. 44	2. 92	5. 36	. 13	7. 09	3. 70	6. 08
S.D.	. 17	13	. 12	. 20	1. 30	. 02	1. 15	. 89	. 21
C.V. (%)	1	9	1	7	24	18	16	24	3

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methyl-nicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1958									
EIGHT 6-DAY PERIODS									
VIRGINIA—Continued									
Diet 8:									
Subject 30:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	12.15	197	15.43	2.06	4.56	0.26	5.80	2.53	11.01
2	12.52	173	15.40	3.17	5.98	.23	7.91	2.30	11.26
3	12.46	197	15.74	3.07	4.03	.28	6.29	1.80	11.43
4	12.22	174	15.12	2.23	6.09	.25	7.18	2.14	11.86
5	13.12	197	16.40	3.76	7.41	.26	9.62	1.56	13.35
Mean	12.49	188	15.62	2.86	5.61	.26	7.36	2.07	11.78
S.D.	.38	13	.49	.70	1.34	.02	1.50	.39	.93
C.V. (%)	3	7	3	24	24	7	20	19	8
Diet 8′:									
Subject 30:									
Period 6	12.33	124	14.40	1.63	4.23	.19	5.07	1.25	9.23
7	12.07	150	14.57	2.13	5.47	.23	6.57	1.45	6.75
8	12.03	138	14.33	1.78	8.14	.27	8.46	4.50	8.09
Mean	12.14	137	14.43	1.85	5.95	.23	6.70	2.40	8.02
S.D.	.16	13	.12	.26	2.00	.04	1.70	1.82	1.24
C.V. (%)	1	9	1	14	34	17	25	76	15
Diet 8:									
Subject 31:									
Period 1	12.15	197	15.43	.99	3.34	.21	3.80	2.35	4.00
2	12.52	173	15.40	1.63	5.25	.24	5.95	3.37	5.29
3	12.46	197	15.74	1.68	5.33	.38	6.20	2.70	5.29
4	12.22	174	15.12	2.03	3.98	.36	5.40	4.24	5.58
5	13.12	197	16.40	2.77	3.75	.26	5.77	2.69	4.39
Mean	12.49	188	15.62	1.82	4.33	.29	5.43	3.07	4.91
S.D.	.38	13	.49	.65	.91	.08	.95	.75	.68
C.V. (%)	3	7	3	36	21	26	17	24	14
Diet 8′:									
Subject 31:									
Period 6	12.24	123	14.29	3.17	5.26	.38	7.48	3.60	4.56
7	12.07	150	14.57	3.27	4.74	.30	7.06	3.63	4.31
8	12.03	138	14.33	3.17	5.26	.32	7.42	4.03	4.09
Mean	12.11	137	14.40	3.20	5.09	.33	7.32	3.75	4.32
S.D.	.11	14	.15	.06	.30	.04	.23	.24	.24
C.V. (%)	1	10	1	2	6	13	3	6	6
Diet 8:									
Subject 32:									
Period 1	12.15	197	15.43	2.12	3.64	.52	5.36	3.68	7.88
2	12.52	173	15.40	2.64	4.14	.38	6.10	1.79	7.23
3	12.46	197	15.74	2.53	3.85	.32	5.70	3.46	6.77
4	11.90	167	14.68	1.61	5.84	.30	6.46	4.05	10.50
5	13.12	197	16.40	3.40	9.64	.31	11.16	4.18	9.13
Mean	12.43	186	15.53	2.46	5.42	.37	6.96	3.43	8.30
S.D.	.46	15	.62	.66	2.51	.09	2.39	.96	1.52
C.V. (%)	4	8	4	27	46	25	34	28	18

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic tudies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N¹-methyl-nicotinamide	N¹-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1958									
EIGHT 6-DAY PERIODS									
VIRGINIA—Continued									
Diet 8′:									
Subject 32:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 6	12.34	125	14.42	2.41	6.34	0.32	7.61	5.44	7.54
7	12.07	150	14.57	2.30	3.91	.27	5.49	4.82	4.97
8	12.03	138	14.33	2.36	6.14	.30	7.39	4.91	5.99
Mean	12.15	138	14.44	2.36	5.46	.30	6.84	5.06	6.17
S.D.	.17	13	.12	.06	1.35	.02	1.17	.34	1.29
C.V. (%)	1	9	1	3	25	8	17	7	21
Diet 8:									
Subject 33:									
Period 1	12.15	197	15.43	3.68	6.76	.32	9.09	1.66	9.98
2	12.52	173	15.40	3.51	6.14	.32	8.44	5.15	8.53
3	12.46	197	15.74	3.85	5.64	.38	8.39	3.50	8.53
4	12.22	174	15.12	2.36	4.57	.38	6.20	3.50	7.15
5	13.12	197	16.40	4.03	8.26	.38	10.67	4.05	8.46
Mean	12.49	188	15.62	3.49	6.27	.36	8.56	3.57	8.53
S.D.	.38	13	.49	.66	1.37	.03	1.61	1.26	1.00
C.V. (%)	3	7	3	19	22	9	19	35	12
Diet 8′:									
Subject 33:									
Period 6	12.34	125	14.42	4.31	5.48	.49	8.79	3.74	7.47
7	12.07	150	14.57	3.05	4.47	.26	6.62	2.28	6.83
8	12.03	138	14.33	3.34	5.72	.38	8.01	2.78	7.46
Mean	12.15	138	14.44	3.57	5.22	.38	7.81	2.93	7.25
S.D.	.17	13	.12	.66	.66	.12	1.10	.74	.37
C.V. (%)	1	9	1	18	13	31	14	25	5
Diet 8:									
Subject 34:									
Period 1	12.15	197	15.43	1.92	5.15	.26	6.15	2.81	8.54
2	12.52	173	15.40	2.26	5.32	.24	6.57	2.43	6.43
3	12.46	197	15.74	1.83	4.53	.26	5.56	2.85	5.87
4	12.22	174	15.12	2.21	4.76	.20	6.03	2.82	6.13
5	13.12	197	16.40	3.18	8.25	.24	9.76	3.22	7.46
Mean	12.49	188	15.62	2.28	5.60	.24	6.82	2.83	6.89
S.D.	.38	13	.49	.54	1.51	.02	1.69	.28	1.10
C.V. (%)	3	7	3	24	27	10	25	10	16
Diet 8′:									
Subject 34:									
Period 6	12.34	125	14.42	2.43	5.61	.27	6.99	2.77	5.76
7	12.07	150	14.57	2.48	5.61	.29	7.05	2.70	5.76
8	12.03	138	14.33	2.97	4.95	.24	6.90	2.43	5.10
Mean	12.15	138	14.44	2.63	5.39	.27	6.98	2.63	5.54
S.D.	.17	13	.12	.30	.38	.02	.08	.18	.38
C.V. (%)	1	9	1	11	7	9	1	7	7

TABLE 16.—NIACIN AND TRYPTOPHAN: *Mean daily intake of niacin and tryptophan and urinary niacin and tryptophan metabolites for preadolescent girls in 3 metabolic studies*—Continued

Year, location, diet, subject, and period	Intake			Urine					
	Niacin	Tryptophan	Niacin potential	N^1-methyl-nicotinamide	N^1-methyl-2-pyridone-5-carboxamide	Nicotinic acid	Combined derivatives	Quinolinic acid	Tryptophan
1958									
EIGHT 6-DAY PERIODS									
VIRGINIA—Continued									
Diet 8:									
Subject 35:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	12.15	197	15.43	3.00	6.51	0.28	8.24	1.80	10.22
2	12.52	173	15.40	2.72	5.50	.35	7.24	2.55	7.42
3	13.19	240	17.19	2.67	5.10	.26	6.78	2.96	8.91
4	12.95	217	16.57	3.24	4.39	.33	6.79	2.97	9.92
5	13.85	240	17.85	3.44	5.17	.28	7.55	2.08	6.08
Mean	12.93	213	16.49	3.01	5.33	.30	7.32	2.47	8.51
S.D.	.65	29	1.08	.33	.77	.04	.61	.52	1.74
C.V. (%)	5	14	7	11	14	13	8	21	20
Diet 8′									
Subject 35:									
Period 6	12.34	125	14.42	3.72	5.50	.34	8.13	2.69	5.38
7	12.95	201	16.30	3.63	6.04	.21	8.36	2.47	7.85
8	13.64	232	17.51	4.29	4.83	.31	8.07	2.60	5.82
Mean	12.98	186	16.08	3.88	5.46	.29	8.19	2.59	6.35
S.D.	.65	55	1.56	.36	.61	.07	.15	.11	1.32
C.V. (%)	5	30	10	9	11	24	2	4	21
Diet 8:									
Subject 12:									
Period 1	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---
4	12.22	174	15.12	1.24	6.71	.29	6.82	2.35	6.91
5	13.12	197	16.40	2.70	5.12	.28	6.84	3.22	7.11
Mean	12.67	186	15.76	1.97	5.92	.28	6.84	2.78	7.01
S.D.	.64	16	.91	1.03	1.12	.01	.01	.62	.14
C.V. (%)	5	9	6	52	19	2	0	22	2
Diet 8′:									
Subject 12:									
Period 6	12.34	125	14.42	5.02	5.96	.56	9.88	3.74	12.02
7	12.07	150	14.57	3.78	3.43	.24	6.40	1.44	5.23
8	---	---	---	---	---	---	---	---	---
Mean	12.20	138	14.50	4.40	4.70	.40	8.14	2.59	8.62
S.D.	.19	18	.11	.88	1.79	.23	2.46	1.63	4.80
C.V. (%)	2	13	1	20	38	56	30	63	56
Diet 8 (13 subjects):									
Mean	12.51	189	15.66	2.52	5.24	0.28	6.79	3.18	7.54
S.D.	.41	16	.59	.80	1.40	.06	1.61	1.16	2.00
C.V. (%)	3	8	4	32	27	22	24	36	26
Diet 8′ (13 subjects):									
Mean	12.17	134	14.52	3.00	5.26	.30	7.24	3.18	6.08
S.D.	.34	38	.61	.82	.98	.10	.99	1.25	1.79
C.V. (%)	3	29	4	27	19	32	14	39	29

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorus, and magnesium for preadolescent girls in 4 metabolic studies*

[1954, 1956—alternate periods; 1957, 1958—all periods]

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1954												
SIXTEEN 4-DAY PERIODS												
TENNESSEE:												
Diet 1:												
Subject 1:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	1, 087	53	737	297	1, 264	518	260	486	254	84	116	54
3	1, 103	63	919	121	1, 269	648	418	203	249	99	131	19
5	1, 174	49	951	174	1, 265	610	426	229	248	92	135	21
7	1, 255	74	952	229	1, 260	554	454	252	246	99	134	13
9	1, 129	77	890	162	1, 241	610	402	229	247	96	121	30
11	1, 193	78	954	161	1, 251	630	510	111	242	98	125	19
13	1, 080	82	966	32	1, 260	642	505	113	248	100	131	17
15	1, 118	114	941	63	1, 237	632	531	74	241	77	130	34
Mean	1, 142	74	914	155	1, 256	606	438	212	247	93	128	26
S.D	60	20	75	85	12	46	86	129	4	8	7	13
C.V. (%)	5	27	8	55	1	8	20	61	2	9	5	50
Diet 1:												
Subject 2:												
Period 1	1, 087	51	884	152	1, 264	616	430	218	254	84	137	33
3	1, 103	46	959	98	1, 269	654	321	294	249	94	138	17
5	1, 190	31	969	190	1, 198	658	375	165	241	88	141	12
7	1, 255	42	945	268	1, 260	680	433	147	246	92	136	18
9	1, 148	37	949	162	1, 175	656	375	144	231	93	139	−1
11	---	---	---	---	---	---	---	---	---	---	---	---
13	1, 080	25	976	79	1, 260	618	367	275	248	90	149	9
15	1, 076	38	997	41	1, 120	642	402	76	217	50	170	−3
Mean	1, 134	39	954	141	1, 221	646	386	188	241	84	144	12
S.D	68	9	36	76	58	23	39	78	13	16	12	12
C.V. (%)	6	23	4	54	5	4	10	41	5	19	8	100
Diet 1:												
Subject 3:												
Period 1	1, 087	112	802	173	1, 264	639	287	338	254	68	139	47
3	941	63	581	297	954	582	234	138	182	50	102	30
5	939	67	639	233	1, 012	536	274	202	198	65	112	21
7	880	128	979	−227	959	598	362	−1	201	76	118	7
9	903	86	1, 187	−370	993	456	320	217	198	61	143	−6
11	1, 193	101	883	209	1, 251	652	348	251	242	102	146	−6
13	1, 080	130	910	40	1, 260	582	438	240	248	71	157	20
15	754	95	827	−168	947	568	579	−200	174	68	152	−46
Mean	972	98	851	23	1, 080	577	355	148	212	70	134	8
S.D	140	25	191	248	149	61	110	172	31	15	20	28
C.V. (%)	14	26	22	1, 078	14	11	31	116	15	21	15	350

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1954												
SIXTEEN 4-DAY PERIODS												
TENNESSEE—Continued												
Diet 1:												
Subject 4:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	1,087	40	931	116	1,264	662	586	16	254	78	173	3
3	1,103	49	1,081	−27	1,269	648	499	122	249	85	173	−9
5	1,174	37	1,016	121	1,265	616	461	188	248	74	171	3
7	1,255	50	944	261	1,260	652	482	126	246	82	155	9
9	1,129	50	1,006	73	1,241	634	502	105	247	78	163	6
11	1,193	52	976	165	1,251	630	506	115	242	80	160	2
13	1,080	44	991	45	1,260	586	598	76	248	56	183	9
15	1,118	52	1,009	57	1,237	596	494	147	241	84	161	−4
Mean	1,142	47	994	101	1,256	628	516	112	247	77	167	2
S.D	60	6	47	87	12	27	49	51	4	9	9	6
C.V. (%)	5	13	5	86	1	4	9	46	2	12	5	300
Diet 1:												
Subject 5:												
Period 1	1,087	54	998	35	1,264	508	393	363	254	71	171	12
3	1,103	69	942	92	1,269	692	309	268	249	100	126	23
5	1,174	47	880	247	1,265	672	282	311	248	106	116	26
7	1,255	79	976	200	1,260	750	336	174	246	122	131	−7
9	1,129	70	945	114	1,241	606	342	293	247	60	136	51
11	1,193	50	826	317	1,251	574	349	328	242	93	104	45
13	1,059	54	822	183	1,070	660	396	14	219	90	119	10
15	1,118	93	975	50	1,237	590	471	176	241	84	154	3
Mean	1,140	64	920	155	1,232	632	360	241	243	91	132	20
S.D	64	16	69	99	67	77	59	114	11	20	22	20
C.V. (%)	6	25	8	64	5	12	16	47	5	22	17	100
Diet 1:												
Subject 6:												
Period 1	1,087	73	786	228	1,264	610	344	310	254	59	165	30
3	1,103	56	644	403	1,269	620	303	346	249	56	125	68
5	1,174	52	951	171	1,265	706	340	219	248	67	176	5
7	855	66	721	68	981	598	315	68	212	55	156	1
9	1,129	56	907	166	1,241	570	336	335	247	88	169	−10
11	1,193	68	1,082	43	1,251	616	402	233	242	58	174	10
13	1,080	65	906	109	1,260	632	412	216	248	64	175	9
15	1,118	57	934	127	1,237	694	471	72	241	66	172	3
Mean	1,092	62	866	164	1,221	631	365	225	243	64	164	14
S.D	104	7	141	113	98	47	57	108	13	11	17	24
C.V. (%)	10	11	16	69	8	7	16	48	5	17	10	171
6 subjects (Tenn.):												
Mean	1,103	64	916	123	1,211	619	404	188	239	80	145	14
S.D	104	24	114	135	99	53	90	119	19	17	22	20
C.V. (%)	9	38	12	110	8	9	22	63	8	21	15	141

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1954												
SIXTEEN 4-DAY PERIODS												
LOUISIANA:												
Diet 1:												
Subject 7:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	922	59	832	31	1,085	560	361	164	236	82	130	24
3	970	73	851	46	1,130	637	337	156	240	96	127	17
5	1,039	59	865	115	1,114	672	340	102	230	92	137	1
7	996	54	859	83	1,116	682	330	104	230	88	140	2
9	1,024	47	822	155	1,135	725	334	76	246	102	136	8
11	1,020	50	852	118	1,180	708	355	117	238	108	130	0
13	1,062	68	882	112	1,156	736	354	66	243	108	134	1
15	1,043	72	841	130	1,204	637	374	193	254	110	142	2
Mean	1,010	60	850	99	1,140	670	348	122	240	98	134	7
S.D.	45	10	19	42	38	58	15	45	8	10	5	9
C.V. (%)	4	17	2	42	3	9	4	37	3	10	4	129
Diet 1:												
Subject 8:												
Period 1	922	125	661	136	1,085	740	292	53	236	116	108	12
3	970	131	704	135	1,130	630	307	193	240	116	122	2
5	1,039	107	648	284	1,114	722	250	142	230	96	106	28
7	996	128	690	178	1,116	725	267	124	230	112	117	1
9	1,024	129	753	142	1,135	705	304	126	246	114	120	12
11	1,020	132	675	213	1,180	719	288	173	238	111	113	14
13	1,062	180	691	191	1,156	738	294	124	243	117	112	14
15	1,043	136	682	225	1,204	740	307	157	254	114	124	16
Mean	1,010	134	688	188	1,140	715	289	136	240	112	115	12
S D	45	21	32	52	38	36	20	42	8	7	7	8
C.V. (%)	4	16	5	28	3	5	7	31	3	6	6	67
Diet 1:												
Subject 9:												
Period 1	------	------	------	------	------	------	------	------	------	------	------	------
3	970	99	814	57	1,130	638	378	114	240	91	152	−3
5	1,039	84	810	145	1,114	647	345	122	230	88	140	2
7	996	80	782	134	1,116	630	360	126	230	74	154	2
9	1,024	89	802	133	1,135	662	364	109	246	88	150	8
11	1,020	80	820	120	1,180	642	384	154	238	74	159	5
13	1,062	158	843	61	1,156	772	383	1	243	97	186	−40
15	1,043	107	716	220	1,204	643	363	198	254	73	153	28
Mean	1,022	100	798	124	1,148	662	368	118	240	84	156	0
S.D.	31	28	41	55	34	49	14	60	9	10	14	20
C.V. (%)	3	28	5	44	3	7	4	51	4	12	9	9,999
Diet 1:												
Subject 10:												
Period 1	922	40	662	220	1,085	518	430	137	236	90	118	28
3	970	40	639	291	1,130	490	377	263	240	88	106	46
5	1,039	29	841	169	1,114	589	481	44	------	------	------	------
7	996	38	744	214	1,116	555	424	137	230	104	122	4
9	1,024	37	740	247	1,135	550	460	125	246	94	128	24
11	1,020	33	806	181	1,180	545	511	124	238	78	142	18
13	858	40	904	−86	855	559	440	−144	186	85	156	−55
15	1,043	29	750	264	1,204	497	464	243	254	94	139	21
Mean	984	36	761	188	1,102	538	448	116	233	90	130	12
S.D.	65	5	88	118	107	34	40	126	22	8	17	32
C.V. (%)	7	14	12	63	10	6	9	109	9	9	13	267

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1954												
SIXTEEN 4-DAY PERIODS												
LOUISIANA—Continued												
Diet 1:												
Subject 11:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	922	95	771	56	1,085	660	368	57	236	86	150	0
3	970	68	768	134	1,130	511	372	247	240	71	154	15
5	1,039	102	630	307	1,114	670	277	167	230	91	121	18
7	996	99	720	177	1,116	591	334	191	230	78	157	−5
9	1,024	129	784	111	1,135	715	330	90	246	94	146	6
11	1,020	94	775	151	1,180	650	337	193	238	76	157	5
13	1,062	88	816	158	1,156	718	356	82	243	82	180	−19
15	1,043	47	765	231	1,204	454	342	408	254	71	154	29
Mean	1,010	90	754	166	1,140	621	340	179	240	81	152	6
S.D	45	24	56	76	38	96	30	113	8	9	16	15
C.V. (%)	4	27	7	46	3	15	9	63	3	11	11	250
5 subjects (La.):												
Mean	1,007	83	769	154	1,134	641	358	135	238	93	137	8
S.D	47	39	74	79	58	83	59	84	12	14	19	18
C.V. (%)	5	47	10	51	5	13	16	62	5	15	14	234
11 subjects in 1954:												
Mean	1,059	73	849	137	1,176	629	383	164	239	86	142	11
S.D	96	33	122	114	91	69	80	107	16	17	21	19
C.V. (%)	9	45	14	83	8	11	21	65	7	20	15	171
1956												
FOURTEEN 4-DAY PERIODS												
VIRGINIA:												
Diet 2:												
Subject 12:												
Period 1	911	19	798	94	1, 087	532	456	99	219	82	119	18
3	930	27	795	108	1, 081	487	437	157	212	81	119	12
5	961	24	737	200	1, 168	417	384	367	212	83	102	27
7	923	24	833	66	1, 102	358	461	283	216	52	135	29
9	773	18	702	53	1, 036	551	419	66	200	70	122	8
11	918	28	804	86	1, 084	551	415	118	216	90	122	4
13	933	30	753	150	1, 108	518	377	213	212	82	108	22
Mean	907	24	775	108	1, 095	488	421	186	212	77	118	17
S.D	61	4	45	51	40	74	33	108	6	13	11	10
C.V. (%)	7	17	6	47	4	15	8	58	3	17	9	59
Diet 2:												
Subject 13:												
Period 1	911	51	686	174	1, 087	532	368	187	219	84	107	28
3	930	54	567	309	1, 081	502	294	285	212	79	86	47
5	961	50	806	105	1, 168	559	437	172	212	79	125	8
7	923	44	746	133	1, 102	555	369	178	216	79	119	18
9	894	46	655	193	1, 070	515	348	207	217	79	108	30
11	918	47	626	245	1, 084	558	329	197	216	79	102	35
13	933	43	765	125	1, 108	562	403	143	212	83	122	7
Mean	924	48	693	183	1, 100	540	364	196	215	80	110	25
S.D	21	4	84	73	33	24	47	44	3	2	14	15
C.V. (%)	2	8	12	40	3	4	13	22	1	2	13	60

Table 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1956												
FOURTEEN 4-DAY PERIODS												
Virginia—Continued												
Diet 2:												
Subject 14:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	911	27	760	124	1, 087	536	435	116	219	94	109	16
3	930	31	821	78	1, 081	509	469	103	212	86	119	7
5	961	20	823	118	1, 168	509	493	166	212	76	118	18
7	923	23	733	167	1, 102	526	407	169	216	85	90	41
9	894	24	629	241	1, 070	522	404	144	217	81	114	22
11	918	18	832	68	1, 084	540	532	12	216	84	133	−1
13	933	17	830	86	1, 108	566	476	66	212	95	120	−3
Mean	924	23	775	126	1,100	530	459	111	215	86	115	14
S.D.	21	5	75	61	33	20	47	57	3	7	13	15
C.V. (%)	2	22	10	48	3	4	10	51	1	8	11	107
3 subjects on diet 2:												
Mean	919	32	748	139	1,098	519	415	164	214	81	114	19
S.D.	38	13	78	68	33	50	57	81	4	9	12	13
C.V. (%)	4	41	10	49	3	10	14	49	2	11	11	72
Diet 3:												
Subject 15:												
Period 1	962	133	717	112	1,246	641	418	187	222	86	118	18
3	980	104	608	268	1,106	650	353	103	215	86	106	23
5	951	115	730	106	1,317	714	442	161	220	86	128	6
7	1,003	144	856	3	1,334	716	489	129	217	93	144	−20
9	980	127	641	212	1,347	753	395	199	225	91	122	12
11	988	118	834	36	1,302	734	532	36	226	89	151	−14
13	981	105	703	173	1,244	690	435	119	221	87	127	7
Mean	978	121	727	130	1,271	700	438	133	221	88	128	5
S.D.	17	15	92	94	83	42	59	56	4	3	15	16
C.V. (%)	2	12	13	72	7	6	13	42	2	3	12	320
Diet 3:												
Subject 16:												
Period 1	962	32	786	144	1,246	630	408	208	222	94	114	14
3	980	28	798	154	1,106	732	388	−14	215	95	110	10
5	951	30	774	147	1,317	728	414	175	220	94	116	10
7	1,003	37	778	188	1,334	604	403	327	217	96	111	10
9	980	39	785	156	1,347	765	407	175	225	94	122	9
11	988	38	825	125	1,302	777	434	91	226	103	125	−2
13	981	32	774	175	1,244	749	407	88	221	100	113	8
Mean	978	34	789	156	1,271	712	409	150	221	97	116	8
S.D.	17	4	18	21	83	68	14	108	4	4	6	5
C.V. (%)	2	12	2	13	7	10	3	72	2	4	5	62

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1956												
FOURTEEN 4-DAY PERIODS												
VIRGINIA—Continued												
Diet 3:												
Subject 17:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
5	951	125	701	125	1,317	647	457	213	220	64	143	13
7	1,003	86	649	268	1,334	623	384	327	217	68	130	19
9	980	86	629	265	1,347	725	435	187	225	75	138	12
11	988	65	613	310	1,302	721	388	193	226	72	133	21
13	981	51	707	223	1,244	694	490	60	221	72	156	−7
Mean	981	83	660	238	1,309	682	431	196	222	70	140	12
S.D.	19	28	42	70	40	45	45	95	4	4	10	11
C.V. (%)	2	34	6	29	3	7	10	48	2	6	7	92
3 subjects on diet 3:												
Mean	979	79	732	168	1,281	700	425	156	221	87	127	8
S.D.	17	42	78	79	72	52	43	87	4	11	14	11
C.V. (%)	2	53	11	47	6	7	10	56	2	13	11	145
Diet 4:												
Subject 18:												
Period 1	946	85	760	101	1,135	624	358	153	221	75	141	5
3	1,012	88	600	324	1,040	658	306	76	231	91	103	37
5	985	76	748	161	1,210	569	361	280	228	86	130	12
7	993	67	772	154	1,226	577	323	326	225	86	136	3
9	1,008	79	722	207	1,321	713	344	264	238	91	122	25
11	985	67	552	366	1,244	713	237	294	236	91	100	45
13	976	59	880	37	1,206	577	429	200	240	81	158	1
Mean	986	74	719	193	1,197	633	337	228	231	86	127	18
S.D.	22	11	111	117	89	63	59	89	7	6	21	18
C.V. (%)	2	15	15	61	7	10	18	39	3	7	17	100
Diet 4:												
Subject 19:												
Period 1	946	140	616	190	1,135	715	353	67	-----	-----	-----	-----
3	1,012	121	647	244	1,040	673	286	81	231	112	114	5
5	985	142	568	275	1,210	728	287	195	228	102	103	23
7	993	124	434	435	1,226	601	213	412	225	102	75	48
9	1,008	132	637	239	1,321	725	356	240	238	108	117	13
11	985	97	544	344	1,244	749	273	222	236	103	96	37
13	976	108	558	310	1,206	765	258	183	240	113	92	35
Mean	986	123	572	291	1,197	708	289	200	233	107	100	27
S.D.	22	17	73	81	89	55	51	115	6	5	15	16
C.V. (%)	2	14	13	28	7	8	18	58	3	5	15	59

Table 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1956												
FOURTEEN 4-DAY PERIODS												
Virginia—Continued												
Diet 4:												
Subject 20:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	946	128	708	110	1,135	595	431	109	221	74	148	−1
3	1,012	91	803	118	1,040	673	399	−32	231	77	149	5
5	985	96	942	−53	1,210	682	308	220	228	74	194	−40
7	861	84	580	197	868	480	323	65	175	64	108	3
9	1,008	113	723	172	1,321	690	403	228	238	70	156	12
11	985	94	613	278	1,244	640	330	274	236	72	123	41
13	976	95	684	197	1,206	655	377	174	240	79	134	27
Mean	968	100	722	146	1,146	631	367	148	224	73	145	7
S.D.	52	15	122	104	151	74	47	107	23	5	27	25
C.V. (%)	5	15	17	71	13	12	13	72	10	7	19	357
3 subjects on diet 4:												
Mean	980	99	671	210	1,180	657	331	192	229	88	125	17
S.D.	34	25	122	115	110	71	60	104	14	15	28	21
C.V. (%)	3	25	18	55	9	11	18	54	6	17	22	125
Diet 5:												
Subject 21:												
Period 1	1,127	84	1,059	−16	1,296	745	476	75	------	------	------	------
3	1,126	57	694	375	1,312	704	297	311	233	108	92	33
5	1,102	64	959	79	1,397	795	445	157	232	113	134	−15
7	1,111	61	796	254	1,341	697	369	275	240	118	106	16
9	1,096	70	829	197	1,406	834	439	133	234	128	107	−1
11	1,099	63	941	95	1,360	813	455	92	240	128	127	−15
13	1,102	68	824	210	1,321	761	396	164	242	133	109	0
Mean	1,109	67	872	171	1,348	764	411	172	237	121	112	3
S.D.	13	9	122	129	42	53	62	89	4	10	15	19
C.V. (%)	1	13	14	75	3	7	15	52	2	8	13	633
Diet 5:												
Subject 22:												
Period 1	1,127	129	759	239	1,296	652	396	248	231	108	114	9
3	1,126	121	691	314	1,312	773	361	178	233	103	107	23
5	1,102	116	525	461	1,397	759	242	396	232	97	85	50
7	1,111	121	784	206	1,341	716	388	237	240	107	123	10
9	1,096	125	869	102	1,406	809	455	142	234	109	147	−22
11	1,099	109	672	318	1,360	825	363	172	240	106	109	25
13	1,102	108	739	255	1,321	753	422	146	242	107	117	18
Mean	1,109	118	720	271	1,348	755	375	217	236	105	115	16
S.D.	13	8	108	111	42	58	67	89	5	4	19	22
C.V. (%)	1	7	15	41	3	8	18	41	2	4	17	138

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	In-take	Urine	Feces	Balance
1956												
FOURTEEN 4-DAY PERIODS												
VIRGINIA—Continued												
Diet 5:												
Subject 23:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	1,127	56	820	251	1,296	607	406	283	------	------	------	------
3	1,126	54	931	141	1,312	673	450	189	233	93	128	12
5	1,102	55	901	146	1,397	740	442	215	232	99	135	−2
7	1,111	60	794	257	1,341	644	353	344	240	101	116	23
9	1,096	56	883	157	1,406	734	454	218	234	101	137	−4
11	1,099	50	1,047	2	1,360	745	553	62	240	101	136	3
13	1,102	58	962	82	1,321	749	494	78	242	104	137	1
Mean	1,109	56	905	148	1,348	699	450	198	237	100	132	6
S.D.	13	3	86	90	42	57	63	102	4	4	8	10
C.V. (%)	1	5	10	61	3	8	14	52	2	4	6	167
3 subjects on diet 5:												
Mean	1,109	80	832	196	1,348	739	412	196	236	109	119	9
S.D.	12	29	130	119	40	61	69	91	4	11	17	18
C.V. (%)	1	36	16	61	3	8	17	46	2	10	14	207
12 subjects in 1956:												
Mean	997	72	746	179	1,225	653	395	178	225	91	121	13
S.D.	76	38	119	100	119	102	69	91	12	16	19	17
C.V. (%)	8	53	16	56	10	16	17	51	5	17	16	127
1957												
FOUR 6-DAY PERIODS												
VIRGINIA:												
Diet 6:												
Subject 12:												
Period 1	1,068	40	890	138	1,064	578	400	86	166	78	75	13
2	1,113	38	1,118	−43	1,139	539	483	117	169	80	113	−24
3	1,103	38	793	272	1,139	567	349	223	165	74	66	25
4	1,128	27	856	245	1,109	529	400	180	182	69	73	40
Mean	1,103	36	914	153	1,113	553	408	152	170	75	82	14
S.D.	25	6	142	143	35	23	55	62	8	5	21	27
C.V. (%)	2	17	16	93	3	4	13	41	5	7	26	193
Diet 6:												
Subject 13:												
Period 1	1,068	96	800	172	1,064	585	347	132	166	79	75	12
2	1,113	89	905	119	1,139	616	402	121	169	78	101	−10
3	1,103	94	790	219	1,139	587	341	211	165	71	72	22
4	1,128	94	865	169	1,109	572	396	141	182	74	78	30
Mean	1,103	93	840	170	1,113	590	372	151	170	76	82	14
S.D.	25	3	55	41	35	19	32	41	8	4	13	17
C.V. (%)	2	3	7	24	3	3	9	27	5	5	16	121

Table 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1957												
FOUR 6-DAY PERIODS												
Virginia—Continued												
Diet 6:												
Subject 14:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	1, 068	32	1, 076	−40	1, 064	640	474	−50	166	90	96	−20
2	1, 113	29	896	188	1, 139	626	384	129	169	94	80	−5
3	1, 103	30	798	275	1, 139	553	343	243	165	72	79	14
4	1, 128	33	881	214	1, 109	599	432	78	182	79	75	28
Mean	1,103	31	913	159	1,113	604	408	100	170	84	82	4
S.D	25	2	117	138	35	38	57	121	8	10	9	21
C.V. (%)	2	6	13	87	3	6	14	121	5	12	11	525
Diet 6:												
Subject 15:												
Period 1	1,068	72	760	236	1,064	636	331	97	166	79	78	9
2	1,113	97	734	282	1,139	664	305	170	169	88	88	−7
3	1,103	92	877	134	1,139	628	400	111	165	73	71	21
4	1,128	95	634	399	1,109	622	286	201	182	75	64	43
Mean	1,103	89	751	263	1,113	638	330	145	170	79	75	16
S.D	25	12	100	110	35	19	50	49	8	7	10	21
C.V. (%)	2	13	13	42	3	3	15	34	5	9	13	131
Diet 6:												
Subject 17:												
Period 1	1,068	71	953	44	1,064	609	498	−43	166	71	118	−23
2	1,113	97	702	314	1,139	605	384	150	169	75	101	−7
3	1,103	124	717	262	1,139	625	391	123	165	67	87	11
4	1,128	114	819	195	1,109	579	394	136	182	64	97	21
Mean	1,103	102	798	204	1,113	604	417	92	170	69	101	0
S.D	25	23	116	117	35	19	54	90	8	5	13	19
C.V. (%)	2	23	15	57	3	3	13	98	5	7	13	9,999
Diet 6:												
Subject 36:												
Period 1	1,068	62	841	165	1,064	520	366	178	166	50	81	35
2	1,113	90	911	112	1,139	633	391	115	169	81	99	−11
3	1,103	90	822	191	1,139	543	347	249	165	66	78	21
4	1,128	92	802	234	1,109	633	360	116	182	74	75	33
Mean	1,103	84	844	176	1,113	582	366	164	170	68	83	20
S.D	25	14	47	51	35	59	18	64	8	13	11	21
C.V. (%)	2	17	6	29	3	10	5	39	5	19	13	105
6 subjects on diet 6:												
Mean	1,103	72	843	187	1,113	595	384	134	170	75	84	11
S.D	23	31	108	103	31	39	52	73	7	9	14	20
C.V. (%)	2	43	13	55	3	7	14	54	4	12	17	179
Diet 7:												
Subject 19:												
Period 1	1, 217	110	560	547	1, 139	600	214	325	194	78	65	51
2	1, 146	141	742	263	1, 118	563	319	236	188	78	92	18
3	1, 146	162	735	249	1, 099	628	337	134	186	82	72	32
4	1, 111	173	756	182	1, 134	607	356	171	170	80	84	6
Mean	1, 155	146	698	310	1, 122	600	306	216	184	80	78	27
S.D	45	28	93	162	18	27	63	84	10	2	12	19
C.V. (%)	4	19	13	52	2	4	21	39	5	2	15	70

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1957												
FOUR 6-DAY PERIODS												
VIRGINIA—Continued												
Diet 7:												
Subject 21:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	1, 217	49	900	268	1, 139	637	334	168	194	108	63	23
2	1, 146	51	897	198	1, 118	598	328	192	188	102	67	19
3	1, 146	61	873	212	1, 099	652	332	115	186	96	65	25
4	1, 111	67	846	198	1, 134	636	347	151	170	102	67	1
Mean	1, 155	57	879	219	1, 122	631	335	156	184	102	66	17
S.D	45	8	25	33	18	23	8	32	10	5	2	11
C.V. (%)	4	14	3	15	2	4	2	21	5	5	3	65
Diet 7:												
Subject 22:												
Period 1	1, 217	86	773	358	1, 139	617	307	215	194	100	76	18
2	1, 146	130	866	150	1, 118	689	288	141	188	104	81	3
3	1, 146	165	863	118	1, 099	746	326	27	186	104	85	−3
4	1, 111	147	644	320	1, 134	678	285	171	170	92	65	13
Mean	1, 155	132	786	236	1, 122	682	302	138	184	100	77	8
S.D	45	34	104	120	18	53	19	80	10	6	9	10
C.V. (%)	4	26	13	51	2	8	6	58	5	6	12	125
Diet 7:												
Subject 23:												
Period 1	1, 217	54	790	373	1, 139	555	310	274	194	97	75	22
2	1, 146	52	934	160	1, 118	552	382	184	188	88	93	7
2	1, 146	57	901	188	1, 099	628	391	80	186	90	75	21
4	1, 111	51	924	136	1, 134	565	399	170	170	84	85	1
Mean	1, 155	54	887	214	1, 122	575	370	177	184	90	82	13
S.D	45	3	66	108	18	36	41	79	10	5	9	10
C.V. (%)	4	6	7	50	2	6	11	45	5	6	11	77
4 subjects on diet 7:												
Mean	1, 155	97	813	245	1, 122	622	328	172	184	93	76	16
S.D	40	48	106	111	16	53	45	71	9	10	10	14
C.V. (%)	3	49	13	45	1	9	14	41	5	11	13	86
10 subjects in 1957:												
Mean	1, 124	82	831	210	1, 117	606	361	149	176	82	81	13
S.D	40	40	107	108	27	46	56	74	10	13	13	18
C.V. (%)	4	49	13	51	2	8	16	50	6	16	17	136
1958												
EIGHT 6-DAY PERIODS												
VIRGINIA:												
Diet 8:												
Subject 24:												
Period 1	1, 026	35	912	79	1, 259	542	529	188	135	54	70	11
2	999	21	862	116	1, 265	701	412	152	135	69	50	16
3	973	21	865	87	1, 244	675	425	144	133	60	67	6
4	984	29	921	34	1, 223	720	438	65	135	72	48	15
5	1, 023	33	810	180	1, 275	772	386	117	138	73	44	21
Mean	1, 001	28	874	99	1, 253	682	438	133	135	66	56	14
S.D	23	7	45	54	20	86	54	46	2	8	12	6
C.V. (%)	2	25	5	55	2	13	12	35	1	12	21	43

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1958												
EIGHT 6-DAY PERIODS												
VIRGINIA—Continued												
Diet 8′:												
Subject 24:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 6	901	39	902	−40	1,250	694	456	100	120	56	48	16
7	942	33	871	38	1,312	768	436	108	120	69	39	12
8	957	44	834	79	1,245	751	420	74	120	69	40	11
Mean	933	39	869	26	1,269	738	437	94	120	65	42	13
S.D	29	6	34	60	37	39	18	18	0	8	5	3
C.V. (%)	3	15	4	231	3	5	4	19	0	12	12	23
Diet 8:												
Subject 25:												
Period 1	1,026	30	845	151	1,259	682	484	93	135	73	71	−9
2	999	39	822	138	1,265	704	398	163	135	75	59	1
3	973	45	689	239	1,244	571	325	348	133	62	54	17
4	984	58	804	122	1,223	720	353	150	135	73	41	21
5	1,023	65	699	259	1,275	766	365	144	138	79	42	17
Mean	1,001	47	772	182	1,253	689	385	180	135	72	53	9
S.D	23	14	73	63	20	73	61	98	2	6	13	13
C.V. (%)	2	30	9	35	2	11	16	54	1	8	25	144
Diet 8′:												
Subject 25:												
Period 6	901	69	727	105	1,250	762	334	154	120	60	36	24
7	942	79	838	25	1,312	833	366	113	120	67	40	13
8	957	73	752	132	1,245	746	351	148	120	70	40	10
Mean	933	74	772	87	1,269	780	350	138	120	66	39	16
S.D	29	5	58	56	37	46	16	22	0	5	2	7
C.V. (%)	3	7	8	64	3	6	5	16	0	8	5	44
Diet 8:												
Subject 26:												
Period 1	1,026	49	650	327	1,259	667	358	234	135	56	62	17
2	999	58	733	208	1,265	678	330	257	135	53	70	12
3	973	55	664	254	1,244	680	291	273	133	55	75	3
4	939	60	740	139	1,085	675	324	186	128	50	48	30
5	1,000	60	1,172	−232	1,253	661	340	252	132	52	56	24
Mean	987	56	792	139	1,241	672	329	240	133	53	62	17
S.D	33	5	216	219	32	8	25	33	3	2	11	10
C.V. (%)	3	9	27	158	3	1	8	14	2	4	18	59
Diet 8′:												
Subject 26:												
Period 6	884	63	696	125	1,231	790	335	106	117	50	56	11
7	909	64	679	166	1,275	758	324	193	116	52	54	10
8	934	68	732	134	1,215	699	356	160	117	54	54	9
Mean	909	65	702	142	1,240	749	338	153	117	52	55	10
S.D	25	3	27	22	31	46	16	44	1	2	1	1
C.V. (%)	3	5	4	15	2	6	5	29	1	4	2	10

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1958												
EIGHT 6-DAY PERIODS												
VIRGINIA—Continued												
Diet 8:												
Subject 27:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	1, 026	55	667	304	1, 259	745	319	195	135	80	45	10
2	999	59	589	351	1, 265	755	251	259	135	80	36	19
3	973	60	664	249	1, 244	729	281	234	133	74	58	1
4	984	68	655	261	1, 223	783	225	215	135	74	38	23
5	1, 023	61	658	304	1, 275	555	241	479	138	67	35	36
Mean	1, 001	61	647	294	1, 253	713	263	276	135	75	42	18
S.D.	23	5	33	41	20	91	37	116	2	5	10	13
C.V. (%)	2	8	5	14	2	13	14	42	1	7	24	72
Diet 8′:												
Subject 27:												
Period 6	901	67	698	136	1, 250	735	283	232	120	68	32	20
7	942	60	657	225	1, 312	810	292	210	120	70	32	18
8	957	64	794	99	1, 245	659	331	255	120	71	39	10
Mean	933	64	716	153	1, 269	735	302	232	120	70	34	16
S.D.	29	4	70	65	37	76	26	23	0	2	4	5
C.V. (%)	3	6	10	42	3	10	9	10	0	3	12	31
Diet 8:												
Subject 28:												
Period 1	1, 026	32	894	100	1, 259	716	419	124	135	60	69	6
2	999	29	666	304	1, 265	720	294	251	135	64	48	23
3	973	26	739	208	1, 244	650	308	286	133	54	69	10
4	984	40	803	141	1, 223	790	273	160	135	66	36	33
5	1, 023	44	790	189	1, 275	792	264	219	138	70	50	18
Mean	1, 001	34	778	188	1, 253	734	312	208	135	63	54	18
S.D.	23	8	84	77	20	59	62	66	2	6	14	11
C.V. (%)	2	24	11	41	2	8	20	32	1	10	26	61
Diet 8′:												
Subject 28:												
Period 6	901	39	773	89	1, 250	832	271	147	120	60	42	18
7	942	43	759	140	1, 312	833	298	181	120	60	46	14
8	934	41	761	132	1, 219	757	306	156	116	60	41	15
Mean	926	41	764	120	1, 260	807	292	161	119	60	43	16
S.D.	22	2	8	27	47	44	18	18	2	0	3	2
C.V. (%)	2	5	1	22	4	5	6	11	2	0	7	12
Diet 8:												
Subject 29:												
Period 1	1, 026	16	908	102	1, 259	695	461	103	135	63	64	8
2	999	20	854	125	1, 265	643	464	158	135	62	66	7
3	973	30	752	191	1, 244	658	325	261	133	59	68	6
4	984	48	858	78	1, 223	732	328	163	135	61	52	22
5	1, 023	38	1, 012	−27	1, 275	718	363	194	138	67	54	17
Mean	1, 001	30	877	94	1, 253	689	388	176	135	62	61	12
S.D.	23	13	94	80	20	38	69	58	2	3	7	7
C.V. (%)	2	43	11	85	2	6	18	33	1	5	11	58

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1958												
EIGHT 6-DAY PERIODS												
VIRGINIA—Continued												
Diet 8′:												
Subject 29:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 6	901	25	688	188	1,250	785	278	187	120	63	32	25
7	942	31	775	136	1,312	824	312	176	120	64	37	19
8	957	36	847	74	1,245	718	379	148	120	65	41	14
Mean	933	31	770	133	1,269	776	323	170	120	64	37	19
S.D.	29	6	80	57	37	54	51	20	0	1	5	6
C.V. (%)	3	19	10	43	3	7	16	12	0	2	14	32
Diet 8:												
Subject 30:												
Period 1	1,026	11	816	199	1,259	662	448	149	135	60	63	12
2	999	9	873	117	1,265	752	416	97	135	65	61	9
3	973	10	758	205	1,244	764	362	118	133	63	71	−1
4	984	36	946	2	1,223	735	319	169	135	62	47	26
5	1,023	15	814	194	1,275	831	336	108	138	66	50	22
Mean	1,001	16	841	143	1,253	749	376	128	135	63	58	14
S.D.	23	11	71	87	20	61	54	30	2	2	10	11
C.V. (%)	2	69	8	61	2	8	14	23	1	3	17	79
Diet 8′:												
Subject 30:												
Period 6	901	29	796	76	1,250	776	332	142	120	54	46	20
7	942	35	822	85	1,312	775	368	169	120	55	50	15
8	957	31	830	96	1,245	748	355	142	120	51	53	16
Mean	933	32	816	86	1,269	766	352	151	120	53	50	17
S.D.	29	3	18	10	37	16	18	16	0	2	4	3
C.V. (%)	3	9	2	12	3	2	5	11	0	4	8	18
Diet 8:												
Subject 31:												
Period 1	1,026	10	778	238	1,259	597	448	214	135	46	66	23
2	999	8	668	323	1,265	625	324	316	135	52	50	33
3	973	9	816	148	1,244	674	417	153	133	52	84	−3
4	984	13	713	258	1,223	651	386	186	135	54	53	28
5	1,023	13	716	294	1,275	714	325	236	138	56	52	30
Mean	1,001	11	738	252	1,253	652	380	221	135	52	61	22
S.D.	23	2	59	67	20	45	55	62	2	4	14	15
C.V. (%)	2	18	8	27	2	7	14	28	1	8	23	68
Diet 8′:												
Subject 31:												
Period 6	901	15	884	2	1,250	698	396	156	120	49	56	15
7	942	11	829	102	1,312	756	412	144	120	54	52	14
8	957	15	708	234	1,245	713	332	200	120	54	48	18
Mean	933	14	807	113	1,269	722	380	167	120	52	52	16
S.D.	29	2	90	116	37	30	42	29	0	3	4	2
C.V. (%)	3	14	11	103	3	4	11	17	0	6	8	12

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1958												
EIGHT 6-DAY PERIODS												
VIRGINIA—Continued												
Diet 8:												
Subject 32:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	1,026	36	524	466	1,259	727	291	241	135	63	54	18
2	999	38	884	77	1,265	697	434	134	135	66	64	5
3	973	53	593	327	1,244	713	292	239	133	67	62	4
4	969	76	664	229	1,200	706	392	102	131	54	57	20
5	1,023	70	756	197	1,275	860	312	103	138	67	53	18
Mean	998	55	684	259	1,249	741	344	164	134	63	58	13
S.D	27	18	141	146	29	68	65	71	3	6	5	8
C.V. (%)	3	33	21	56	2	9	19	43	2	10	9	62
Diet 8′:												
Subject 32:												
Period 6	901	51	734	116	1,250	620	332	298	120	46	44	30
7	942	78	731	133	1,312	847	349	116	120	64	45	11
8	957	84	749	124	1,245	748	346	151	120	62	47	11
Mean	933	71	738	124	1,269	738	342	188	120	57	45	17
S.D	29	18	10	9	37	114	9	97	0	10	2	11
C.V. (%)	3	25	1	7	3	15	3	52	0	18	4	65
Diet 8:												
Subject 33:												
Period 1	1,026	32	919	75	1,259	852	332	75	135	67	68	0
2	999	32	764	203	1,265	792	283	190	135	68	50	17
3	973	34	768	171	1,244	814	279	151	133	63	70	0
4	984	45	747	192	1,223	821	266	136	135	70	40	25
5	1,023	50	647	326	1,275	941	190	144	138	70	40	28
Mean	1, 001	39	769	193	1, 253	844	270	139	135	68	54	14
S.D	23	8	97	90	20	58	51	41	2	3	15	13
C.V. (%)	2	21	13	47	2	7	19	29	1	4	28	93
Diet 8′:												
Subject 33:												
Period 6	901	52	733	116	1, 250	870	253	127	120	58	42	20
7	942	55	773	114	1, 312	861	272	179	120	61	46	13
8	957	51	700	206	1, 245	822	242	181	120	61	42	17
Mean	933	53	735	145	1, 269	851	256	162	120	60	43	17
S.D	29	2	37	53	37	26	15	31	0	2	2	4
C.V. (%)	3	4	5	37	3	3	6	19	0	3	5	24
Diet 8:												
Subject 34:												
Period 1	1, 026	59	648	319	1, 259	676	335	248	135	60	49	26
2	999	64	729	206	1, 265	718	356	191	135	73	54	8
3	973	99	506	368	1, 244	752	235	257	133	64	54	15
4	984	142	837	5	1, 223	790	255	178	135	69	32	34
5	1, 023	130	899	−6	1, 275	842	405	28	138	78	58	2
Mean	1, 001	99	724	178	1, 253	756	317	180	135	69	49	17
S.D	23	38	155	174	20	64	71	92	2	7	10	13
C.V. (%)	2	38	21	98	2	8	22	51	1	10	20	76

TABLE 17.—MINERALS: *Mean daily intake and output of calcium, phosphorous, and magnesium for preadolescent girls in 4 metabolic studies*—Continued

Year, location, diet, subject, and period	Calcium				Phosphorus				Magnesium			
	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1958												
EIGHT 6-DAY PERIODS												
VIRGINIA—Continued												
Diet 8′:												
Subject 34:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 6	901	113	577	211	1, 250	780	300	170	120	63	34	23
7	942	122	730	90	1, 312	838	347	127	120	68	42	10
8	957	118	722	117	1, 245	731	362	152	120	64	42	14
Mean	933	118	676	139	1, 269	783	336	150	120	65	39	16
S.D	29	5	86	64	37	54	32	22	0	3	5	7
C.V. (%)	3	4	13	46	3	7	10	15	0	5	13	44
Diet 8:												
Subject 35:												
Period 1	1, 026	49	1, 082	−105	1, 259	858	449	−48	135	71	104	−40
2	999	50	793	156	1, 265	827	286	152	135	79	54	2
3	1, 099	60	619	420	1, 341	748	238	355	146	78	46	22
4	1, 110	71	546	493	1, 320	814	199	307	148	81	32	35
5	1, 149	77	779	293	1, 372	793	250	329	151	83	50	18
Mean	1, 077	61	764	251	1, 311	808	284	219	143	78	57	7
S.D	62	12	207	237	49	41	97	169	8	5	27	29
C.V. (%)	6	20	27	94	4	5	34	77	6	6	47	414
Diet 8′:												
Subject 35:												
Period 6	901	79	544	278	1, 250	922	151	177	120	67	30	23
7	1, 090	90	731	269	1, 428	869	229	330	135	74	44	17
8	1, 231	92	627	512	1, 458	710	218	530	148	76	45	27
Mean	1, 074	87	634	353	1, 379	834	199	346	134	72	40	22
S.D	166	7	94	138	112	110	42	177	14	5	8	5
C.V. (%)	15	8	15	39	8	13	21	51	10	7	20	23
Diet 8 (12 subjects):												
Mean	1, 006	45	772	190	1, 257	727	341	189	136	65	56	15
S.D	35	27	128	131	29	78	76	87	4	9	13	13
C.V. (%)	3	60	17	69	2	11	22	46	3	14	24	88
Diet 8′ (12 subjects):												
Mean	942	57	750	135	1, 275	773	326	176	121	61	43	16
S.D	61	28	80	94	52	65	63	80	5	7	7	5
C.V. (%)	6	49	11	70	4	8	19	45	4	12	16	33

TABLE 18.—MINERALS: *Mean daily intake and output of iron, copper, and cobalt for preadolescent girls in 2 metabolic studies*

[Virginia; 1956—alternate periods; 1958—all periods]

Year, diet, subject, and period	Iron			Copper				Cobalt			
	Intake	Feces	Difference	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1956											
FOURTEEN 4-DAY PERIODS											
Diet 2:											
Subject 12:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 2	6.35	7.12	−0.77	1.170	0.010	1.160	0.000	11.6	0.7	8.7	2.2
4	7.07	6.75	.32	1.130	.020	1.230	−.120	9.4	1.1	9.2	−.9
6	7.02	7.28	−.26	1.100	.020	1.050	.030	17.0	1.5	10.2	5.3
8	4.10	5.29	−1.19	.850	.020	.890	−.060	13.3	2.2	7.2	3.9
10	7.05	7.48	−.43	1.010	.020	1.080	−.090	15.4	.9	11.0	3.5
12	6.57	5.82	.75	1.060	.010	1.160	−.110	11.3	1.2	9.5	.6
14	7.12	7.18	−.06	1.070	.010	1.140	−.080	11.8	1.1	9.4	1.3
Mean	6.47	6.70	−.23	1.056	.016	1.101	−.061	12.8	1.2	9.3	2.3
S.D.	1.08	.83	.65	.104	.005	.110	.056	2.6	.5	1.2	2.1
C.V. (%)	17	12	283	10	31	10	92	20	42	13	91
Diet 2:											
Subject 13:											
Period 2	6.35	7.13	−.78	1.170	.010	1.350	−.190	11.6	1.0	8.7	1.9
4	7.07	5.52	1.55	1.130	.020	1.040	.070	9.4	1.2	6.1	2.1
6	7.02	6.00	1.02	1.100	.010	1.200	−.110	17.0	.9	9.1	7.0
8	7.73	6.80	.93	1.060	.010	1.190	−.140	15.3	1.5	8.1	5.7
10	7.05	7.44	−.39	1.030	.030	1.100	−.100	18.5	.8	12.3	5.4
12	6.57	4.88	1.69	1.060	.010	1.110	−.060	11.3	1.5	9.5	.3
14	7.12	6.49	.63	1.070	.020	1.150	−.100	11.8	1.3	9.4	1.1
Mean	6.99	6.32	.66	1.089	.016	1.163	−.090	13.6	1.2	9.0	3.4
S.D.	.44	.91	.93	.048	.008	.099	.081	3.4	.3	1.9	2.6
C.V. (%)	6	14	141	4	50	9	90	25	25	21	76
Diet 2:											
Subject 14:											
Period 2	6.35	6.75	−.40	1.170	.010	1.090	.070	11.6	.6	8.7	2.3
4	7.07	5.86	1.21	1.130	.020	1.070	.040	9.4	1.3	9.3	−1.2
6	7.02	6.65	.37	1.100	.020	1.180	−.100	17.0	1.2	9.1	6.7
8	7.73	7.00	.73	1.060	.020	1.150	−.110	15.3	1.7	9.1	4.5
10	7.05	7.09	−.04	1.030	.030	.980	.020	18.5	.8	9.2	8.5
12	6.57	5.03	1.54	1.060	.010	1.060	−.010	11.3	2.4	9.7	−.8
14	7.12	7.70	−.58	1.070	.020	1.160	−.110	11.8	1.6	8.6	1.6
Mean	6.99	6.58	.40	1.089	.019	1.099	−.029	13.6	1.4	9.1	3.1
S.D.	.44	.88	.80	.048	.007	.070	.077	3.4	.6	.4	3.7
C.V. (%)	6	13	200	4	37	6	266	25	43	4	119
3 subjects on diet 2:											
Mean	6.81	6.54	.28	1.078	.017	1.121	−.060	13.3	1.3	9.1	2.9
S.D.	.73	.84	.86	.070	.007	.095	.073	3.0	.5	1.2	2.8
C.V. (%)	11	13	307	6	41	8	122	23	38	13	97
Diet 3:											
Subject 15:											
Period 2	7.52	6.42	1.10	1.230	0.010	1.110	0.110	11.8	0.6	8.5	2.7
4	6.49	6.32	.17	1.090	.010	1.050	.030	11.8	.8	11.2	−.2
6	7.27	5.84	1.43	1.050	.020	1.090	−.060	17.8	.9	7.3	9.6
8	7.44	6.21	1.23	1.080	.020	1.430	−.370	12.0	1.2	9.1	1.7
10	7.43	5.55	1.88	1.060	.010	1.060	−.010	18.2	.6	10.3	7.3
12	7.08	5.13	1.95	1.130	.010	1.130	−.010	12.4	2.0	12.0	−1.6
14	7.16	6.37	.79	1.110	.010	1.090	.010	12.0	.8	7.8	3.4
Mean	7.20	5.98	1.22	1.107	.013	1.137	−.043	13.7	1.0	9.5	3.3
S.D.	.35	.49	.62	.061	.005	.132	.153	2.9	.5	1.8	4.0
C.V. (%)	5	8	51	6	38	12	356	21	50	19	121

Table 18.—MINERALS: *Mean daily intake and output of iron, copper, and cobalt for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Iron			Copper				Cobalt			
	Intake	Feces	Difference	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1956											
FOURTEEN 4-DAY PERIODS											
Diet 3:											
Subject 16:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 2	7. 52	[1]11. 46	−3. 94	1. 230	. 020	1. 020	. 190	11, 8	. 6	6. 2	5. 0
4	6. 49	6. 95	−. 46	1. 090	. 010	1. 120	−. 040	11. 8	1. 2	8. 1	2. 5
6	7. 27	5. 74	1. 53	1. 050	. 010	1. 120	−. 080	17. 8	1. 2	8. 1	8. 5
8	7. 44	6. 98	. 46	1. 080	. 020	1. 150	−. 090	12. 0	2. 2	9. 1	. 7
10	7. 43	6. 54	. 89	1. 060	. 020	1. 070	−. 030	18. 2	. 6	9. 2	8. 4
12	7. 08	6. 12	. 96	1. 130	. 010	1. 070	. 050	12. 4	2. 0	9. 3	1. 1
14	7. 16	6. 88	. 28	1. 110	. 010	1. 100	. 000	12. 0	1. 5	8. 2	2. 3
Mean	7. 20	7. 24	−. 04	1. 107	. 014	1. 093	. 000	13. 7	1. 3	8. 3	4. 1
S.D	. 35	1. 92	1. 83	. 061	. 005	. 043	. 096	2. 9	. 6	1. 1	3. 3
C.V. (%)	5	27	4, 575	6	36	4	∞	21	46	13	80
Diet 3:											
Subject 17:											
Period 2	------	------	------	------	------	------	------	------	------	------	------
4	------	------	------	------	------	------	------	------	------	------	------
6	7. 27	6. 76	. 51	1. 050	. 010	1. 320	−. 280	17. 8	1. 4	14. 1	2. 3
8	7. 44	7. 38	. 06	1. 080	. 010	1. 110	−. 040	12. 0	1. 9	9. 3	. 8
10	7. 43	7. 50	−. 07	1. 060	. 010	1. 110	−. 060	18. 2	. 8	13. 0	4. 4
12	7. 08	6. 71	. 37	1. 130	. 010	1. 010	. 110	12. 4	1. 2	10. 6	. 6
14	7. 16	7. 00	. 16	1. 110	. 010	1. 100	. 000	12. 0	1. 6	9. 4	1. 0
Mean	7. 28	7. 07	. 21	1. 086	. 010	1. 130	−. 054	14. 5	1. 4	11. 3	1. 8
S.D	. 16	. 36	. 23	. 034	. 000	. 114	. 142	3. 2	. 4	2. 2	1. 6
C.V. (%)	2	5	110	3	0	10	263	22	29	19	89
3 subjects on diet 3:											
Mean	7. 22	6. 73	. 49	1. 102	. 013	1. 119	−. 030	13. 9	1. 2	9. 5	3. 2
S.D	. 30	1. 30	1. 26	. 053	. 005	. 099	. 126	2. 9	. 5	2. 0	3. 2
C.V. (%)	4	19	257	5	38	9	420	21	42	21	100
Diet 4:											
Subject 18:											
Period 2	7. 64	5. 69	1. 95	1. 240	0. 010	1. 400	−0. 170	11. 6	0. 9	7. 7	3. 0
4	------	------	------	1. 230	. 010	. 890	. 330	24. 4	1. 0	6. 5	16. 9
6	7. 83	7. 72	. 11	1. 200	. 010	1. 350	−. 160	18. 3	1. 6	11. 2	5. 5
8	8. 27	8. 38	−. 11	1. 230	. 010	1. 370	−. 150	12. 0	1. 2	10. 2	. 6
10	7. 21	8. 32	−1. 11	1. 250	. 010	1. 340	−. 100	12. 2	1. 2	10. 3	. 7
12	7. 70	9. 37	−1. 67	1. 140	. 010	1. 240	−. 110	12. 2	1. 2	11. 9	−. 9
14	7. 49	5. 75	1. 74	1. 200	. 010	1. 160	. 030	12. 0	. 8	12. 2	−1. 0
Mean	7. 69	7. 54	. 15	1. 213	. 010	1. 250	−. 047	14. 7	1. 1	10. 0	3. 5
S.D	. 35	1. 50	1. 47	. 037	. 000	. 179	. 180	4. 9	. 3	2. 1	6. 3
C.V. (%)	5	20	980	3	0	14	383	33	27	21	180

See footnote at end of table, p. 134.

TABLE 18. MINERALS: *Mean daily intake and output of iron, copper, and cobalt for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Iron			Copper				Cobalt			
	Intake	Feces	Difference	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1956											
FOURTEEN 4-DAY PERIODS											
Diet 4:											
Subject 19:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 2	7. 64	8. 84	−1. 20	1. 240	. 010	1. 350	−. 120	11. 6	. 6	5. 5	5. 5
4	--------	--------	--------	1. 230	. 020	1. 340	−. 130	24. 4	1. 2	10. 1	13. 1
6	7. 83	10. 45	−2. 62	1. 200	. 010	1. 320	−. 130	18. 3	2. 2	9. 1	7. 0
8	8. 27	8. 40	−. 13	1. 230	. 010	1. 050	. 170	12. 0	. 8	8. 1	3. 1
10	7. 21	10. 82	−3. 61	1. 250	. 010	1. 320	−. 080	12. 2	1. 0	10. 2	1. 0
12	7. 70	7. 50	. 20	1. 140	. 010	1. 070	. 060	12. 2	1. 1	13. 0	−1. 9
14	7. 49	6. 11	1. 38	1. 200	. 020	1. 210	−. 030	12. 0	1. 0	12. 3	−1. 3
Mean	7. 69	8. 69	−1. 00	1. 213	. 013	1. 237	−. 037	14. 7	1. 1	9. 8	3. 8
S.C.	. 35	1. 78	1. 86	. 037	. 005	. 130	. 114	4. 9	. 5	2. 5	5. 3
C.V. (%)	5	20	186	3	38	11	308	33	45	26	139
Diet 4:											
Subject 20:											
Period 2	7. 64	6. 34	1. 30	1. 240	. 010	1. 220	. 010	11. 6	. 6	7. 7	3. 3
4	7. 17	5. 36	1. 81	1. 230	. 010	1. 110	. 110	24. 4	1. 2	9. 2	14. 0
6	7. 83	7. 42	. 41	1. 200	. 010	1. 330	−. 140	18. 3	2. 5	11. 3	4. 5
8	5. 95	14. 05	−8. 10	. 960	. 010	1. 090	−. 140	8. 4	1. 2	12. 1	−4. 9
10	7. 21	7. 14	. 07	1. 250	. 010	1. 090	. 150	12. 2	1. 0	11. 1	. 1
12	7. 70	8. 32	−. 62	1. 140	. 010	1. 150	−. 020	12. 2	. 8	12. 0	−. 6
14	7. 49	8. 44	−. 95	1. 200	. 020	1. 170	. 010	12. 0	. 7	9. 6	1. 7
Mean	7. 28	8. 15	−. 87	1. 174	. 011	1. 166	−. 003	14. 2	1. 1	10. 4	2. 6
S.D	. 64	2. 81	3. 34	. 101	. 004	. 086	. 111	5. 4	. 6	1. 6	5. 9
C.V. (%)	9	34	384	9	36	7	3, 700	38	55	15	227
3 subjects on diet 4:											
Mean	7. 54	8. 13	−. 59	1. 200	. 011	1. 218	−. 029	14. 5	1. 1	10. 1	3. 3
S.D	. 50	2. 09	2. 35	. 065	. 004	. 135	. 133	4. 8	. 5	2. 0	5. 6
C.V. (%)	7	26	398	5	36	11	459	33	45	20	170
Diet 5:											
Subject 21:											
Period 2	7. 66	6. 65	1. 01	1. 500	0. 010	1. 520	−0. 030	17. 8	2. 4	8. 7	6. 7
4	8. 32	7. 24	1. 08	1. 380	. 020	1. 260	. 100	24. 6	3. 7	8. 1	12. 8
6	7. 98	6. 16	1. 82	1. 280	. 020	1. 320	−. 060	19. 0	4. 1	11. 2	3. 7
8	8. 37	7. 78	. 59	1. 280	. 010	1. 260	. 010	15. 2	2. 4	13. 4	−. 6
10	7. 56	6. 98	. 58	1. 270	. 010	1. 260	. 000	17. 2	1. 8	17. 2	−1. 8
12	8. 25	6. 51	1. 74	1. 310	. 010	1. 340	−. 040	12. 2	1. 5	10. 6	. 1
14	7. 28	8. 16	−. 88	1. 310	. 020	1. 220	. 070	19. 0	1. 6	11. 9	5. 5
Mean	7. 92	7. 07	. 85	1. 333	. 014	1. 311	. 007	17. 9	2. 5	11. 6	3. 8
S.D	. 42	. 71	. 91	. 082	. 005	. 101	. 059	3. 8	1. 0	3. 1	5. 1
C.V. (%)	5	10	107	6	36	8	843	21	40	27	134
Diet 5:											
Subject 22:											
Period 2	7. 66	7. 95	−. 29	1. 500	. 010	1. 380	. 110	17. 8	1. 1	11. 2	5. 5
4	8. 32	6. 02	2. 30	1. 380	. 020	1. 200	. 160	24. 6	1. 4	12. 1	11. 1
6	7. 98	12. 62	−4. 64	1. 280	. 020	1. 410	−. 150	19. 0	3. 6	12. 1	3. 3
8	8. 37	6. 25	2. 12	1. 280	. 010	1. 320	−. 050	15. 2	1. 9	8. 4	4. 9
10	7. 56	6. 80	. 76	1. 270	. 010	1. 330	−. 070	17. 2	1. 8	16. 5	−1. 1
12	8. 25	12. 21	−3. 96	1. 310	. 020	1. 670	−. 380	12. 2	1. 9	9. 9	. 4
14	7. 28	6. 74	. 54	1. 310	. 020	1. 240	. 050	19. 0	. 8	10. 9	7. 3
Mean	7. 92	8. 37	−. 45	1. 333	. 016	1. 364	−. 047	17. 9	1. 8	11. 6	4. 5
S.D	. 42	2. 83	2. 78	. 082	. 005	. 153	. 182	3. 8	. 9	2. 5	4. 1
C.V. (%)	5	34	618	6	31	11	387	21	50	22	91

TABLE 18.—MINERALS: *Mean daily intake and output of iron, copper, and cobalt for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Iron			Copper				Cobalt			
	Intake	Feces	Difference	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1956											
FOURTEEN 4-DAY PERIODS											
Diet 5:											
Subject 23:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 2	7.66	8.30	−.64	1.500	.020	1.290	.190	17.8	.6	7.5	9.7
4	8.32	6.12	2.20	1.380	.020	1.160	.200	24.6	1.1	11.2	12.3
6	7.98	6.96	1.02	1.280	.020	1.280	−.020	19.0	3.3	12.3	3.4
8	8.37	7.85	.52	1.280	.010	1.260	.010	15.2	1.2	9.1	4.9
10	7.56	6.44	1.12	1.270	.010	1.230	.030	17.2	1.1	17.2	−1.1
12	8.25	6.28	1.97	1.310	.010	1.220	.080	12.2	1.3	10.0	.9
14	7.28	7.46	−.18	1.310	.010	1.400	−.100	19.0	1.2	13.2	4.6
Mean	7.92	7.06	.86	1.333	.014	1.263	.056	17.9	1.4	11.5	5.0
S.D.	.42	.84	1.05	.082	.005	.075	.110	3.8	.9	3.2	4.7
C.V. (%)	5	12	122	6	36	6	196	21	64	28	94
3 subjects on diet 5:											
Mean	7.92	7.50	.42	1.333	.015	1.313	.005	17.9	1.9	11.6	4.4
S.D.	.40	1.78	1.82	.078	.005	.116	.128	3.6	1.0	2.8	4.4
C.V. (%)	5	24	433	6	33	9	2,560	20	53	24	100
12 subjects in 1956:											
Mean	7.37	7.21	0.16	1.180	0.014	1.194	−0.028	14.9	1.4	10.1	3.5
S.D.	.65	1.66	1.68	.121	.005	.137	.118	4.0	.7	2.2	4.1
C.V. (%)	9	23	1,050	10	36	11	421	27	50	22	117
1958											
EIGHT 6-DAY PERIODS											
Diet 8:											
Subject 24:											
Period 1	10.77	9.26	1.51	1.080	0.017	1.110	−0.047	9.9	1.5	8.2	0.2
2	10.42	8.52	1.90	1.060	.015	1.030	.015	8.3	.9	8.4	−1.0
3	9.68	9.06	.62	1.065	.004	1.200	−.139	8.3	.5	8.0	−.2
4	8.64	9.09	−.45	1.060	.005	1.210	−.155	8.3	.5	7.5	.3
5	9.41	8.56	.85	1.060	.008	1.340	−.288	8.3	.4	8.0	−.1
Mean	9.78	8.90	.89	1.065	.010	1.178	−.123	8.6	.8	8.0	−.2
S.D.	.84	.34	.90	.009	.006	.116	.115	.7	.5	.3	.5
C.V. (%)	9	4	101	1	60	10	93	8	62	4	250
Diet 8′:											
Subject 24:											
Period 6	10.80	9.08	1.72	1.050	.011	1.060	−.021	8.0	.4	10.0	−2.4
7	9.98	9.02	.96	1.060	.010	1.120	−.070	8.0	.5	10.0	−2.5
8	11.53	8.70	2.83	1.060	.010	1.230	−.180	8.0	.8	5.0	2.2
Mean	10.77	8.93	1.84	1.057	.010	1.137	−.090	8.0	.6	8.3	−.9
S.D.	.78	.20	.94	.006	.001	.086	.081	.0	.2	2.9	2.7
C.V. (%)	7	2	51	1	10	8	90	0	33	35	300

TABLE 18.—MINERALS: *Mean daily intake and output of iron, copper, and cobalt for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Iron			Copper				Cobalt			
	Intake	Feces	Difference	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1958											
EIGHT 6-DAY PERIODS											
Diet 8:											
Subject 25:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 1	10.77	8.86	1.91	1.080	.015	1.070	−.005	9.9	.8	6.7	2.4
2	10.42	8.05	2.37	1.060	.014	1.170	−.124	8.3	.8	7.0	.5
3	9.68	7.80	1.88	1.065	.014	1.170	−.109	8.3	.4	7.5	.4
4	8.64	7.22	1.42	1.060	.009	1.170	−.119	8.3	.5	6.2	1.6
5	9.41	7.66	1.75	1.060	.008	1.130	−.078	8.3	.5	6.0	1.8
Mean	9.78	7.92	1.87	1.065	.010	1.142	−.087	8.6	.6	6.7	1.3
S.D.	.84	.61	.34	.009	.005	.044	.049	.7	.2	.6	.9
C.V. (%)	9	8	18	1	50	4	56	8	33	9	69
Diet 8′:											
Subject 25:											
Period 6	10.80	8.15	2.65	1.050	.008	1.020	.022	8.0	.5	8.0	−.5
7	10.25	8.50	1.75	1.060	.008	1.160	−.108	8.0	.5	10.0	−2.5
8	11.80	8.12	3.68	1.060	.008	1.030	.022	8.0	.5	4.0	3.5
Mean	10.95	8.26	2.69	1.057	.008	1.070	−.021	8.0	.5	7.3	.2
S.D.	.79	.21	.97	.006	.000	.078	.075	.0	.0	3.1	3.1
C.V. (%)	7	3	36	1	0	7	357	0	0	42	1,550
Diet 8:											
Subject 26:											
Period 1	10.77	7.80	2.97	1.080	.013	1.090	−.023	9.9	.5	6.7	2.7
2	10.39	9.85	.54	1.060	.012	1.320	−.272	8.3	.5	11.2	−3.4
3	9.61	8.18	1.43	1.065	.004	1.230	−.169	8.3	.4	9.0	−1.1
4	8.07	7.36	.71	1.060	.004	1.230	−.174	8.2	.5	9.0	−1.3
5	9.16	7.98	1.18	1.060	.011	1.220	−.171	8.3	.7	10.0	−2.4
Mean	9.60	8.23	1.37	1.065	.009	1.218	−.162	8.6	.5	9.2	−1.1
S.D.	1.06	.95	.96	.009	.004	.082	.089	.7	.1	1.7	2.3
C.V. (%)	11	12	70	1	44	7	55	8	20	18	209
Diet 8′:											
Subject 26:											
Period 6	10.50	8.90	1.60	1.050	.008	.970	.072	8.0	.7	7.0	.3
7	9.57	8.14	1.43	1.058	.008	.980	.070	7.8	.5	6.0	1.3
8	11.19	7.71	3.48	1.060	.008	1.030	.022	8.0	.7	4.0	3.3
Mean	10.42	8.25	2.17	1.056	.008	.993	.055	7.9	.6	5.7	1.6
S.D.	.81	.60	1.14	.005	.000	.032	.028	.1	.1	1.5	1.5
C.V. (%)	8	7	53	0	0	3	51	1	17	26	94
Diet 8:											
Subject 27:											
Period 1	10.77	9.18	1.59	1.080	.044	1.150	−.114	9.9	.5	6.7	2.7
2	10.42	7.23	3.19	1.060	.012	1.140	−.092	8.3	.5	8.0	−.2
3	9.68	9.02	.66	1.065	.004	1.320	−.259	8.3	.5	7.9	−.1
4	8.64	7.59	1.05	1.060	.008	1.290	−.238	8.3	.5	7.8	.0
5	9.41	7.94	1.47	1.060	.008	1.030	.022	8.3	.5	6.0	1.8
Mean	9.78	8.19	1.59	1.065	.015	1.186	−.136	8.6	.5	7.3	.8
S.D.	.84	.87	.97	.009	.016	.119	.115	.7	.0	.9	1.3
C.V. (%)	9	11	61	1	107	10	85	8	0	12	162

TABLE 18.—MINERALS: *Mean daily intake and output of iron, copper, and cobalt for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Iron			Copper				Cobalt			
	Intake	Feces	Difference	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1958											
EIGHT 6-DAY PERIODS											
Diet 8′:											
Subject 27:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 6	10. 80	10. 14	. 66	1. 050	. 009	1. 130	—. 089	8. 0	. 5	9. 0	—1. 5
7	9. 98	9. 09	. 89	1. 060	. 008	1. 130	—. 078	8. 0	. 7	12. 0	—4. 7
8	11. 53	10. 06	1. 47	1. 060	. 007	1. 270	—. 217	8. 0	. 7	6. 0	1. 3
Mean	10. 77	9. 76	1. 01	1. 057	. 008	1. 177	—. 128	8. 0	. 6	9. 0	—1. 6
S.D.	. 78	. 58	. 42	. 006	. 001	. 081	. 077	. 0	. 1	3. 0	3. 0
C.V. (%)	7	6	42	1	12	7	60	0	17	33	188
Diet 8:											
Subject 28:											
Period 1	10. 77	9. 20	1. 57	1. 080	. 015	1. 130	—. 065	9. 9	. 5	5. 3	4. 1
2	10. 42	6. 81	3. 61	1. 060	. 015	1. 310	—. 265	8. 3	. 5	6. 6	1. 2
3	9. 68	7. 91	1. 77	1. 065	. 004	1. 110	—. 049	8. 3	. 5	6. 7	1. 1
4	8. 03	7. 78	. 25	1. 060	. 008	1. 400	—. 348	8. 3	. 5	7. 5	. 3
5	9. 41	8. 68	. 73	1. 060	. 009	1. 300	—. 249	8. 3	. 4	7. 0	. 9
Mean	9. 66	8. 08	1. 59	1. 065	. 010	1. 250	—. 195	8. 6	. 5	6. 6	1. 5
S.D.	1. 06	. 91	1. 29	. 009	. 005	. 125	. 132	. 7	. 0	. 8	1. 5
C.V. (%)	11	11	81	1	50	10	68	8	0	12	100
Diet 8′:											
Subject 28:											
Period 6	10. 80	8. 43	2. 37	1. 050	. 012	1. 120	—. 082	8. 0	. 4	7. 0	. 6
7	9. 92	8. 74	1. 18	1. 060	. 010	1. 070	—. 020	8. 0	. 5	10. 0	—2. 5
8	11. 40	7. 85	3. 55	1. 060	. 011	1. 070	—. 021	7. 9	. 8	4. 0	3. 1
Mean	10. 71	8. 34	2. 37	1. 057	. 011	1. 087	—. 041	8. 0	. 6	7. 0	. 4
S.D.	. 74	. 45	1. 19	. 006	. 001	. 029	. 036	. 1	. 2	3. 0	2. 8
C.V. (%)	7	5	50	1	9	3	88	1	33	43	700
Diet 8:											
Subject 29:											
Period 1	10. 77	8. 80	1. 97	1. 080	. 015	1. 200	—. 135	9. 9	. 5	8. 0	1. 4
2	10. 42	7. 98	2. 44	1. 060	. 012	1. 190	—. 142	8. 3	. 7	8. 5	—. 9
3	9. 68	7. 84	1. 84	1. 065	. 004	1. 140	—. 079	8. 3	. 4	8. 2	—. 3
4	8. 64	8. 16	. 48	1. 060	. 008	1. 180	—. 128	8. 3	. 5	8. 0	—. 2
5	9. 41	8. 90	. 51	1. 060	. 009	1. 230	—. 179	8. 3	. 5	6. 0	1. 8
Mean	9. 78	8. 34	1. 45	1. 065	. 010	1. 188	—. 133	8. 6	. 5	7. 7	. 4
S.D.	. 84	. 48	. 90	. 009	. 004	. 033	. 036	. 7	. 1	1. 0	1. 2
C.V. (%)	9	6	62	1	40	3	27	8	20	13	300
Diet 8′:											
Subject 29:											
Period 6	10. 80	7. 58	3. 22	1. 050	. 010	1. 200	—. 160	8. 0	. 5	7. 0	. 5
7	9. 98	7. 84	2. 14	1. 060	. 011	1. 150	—. 101	8. 0	. 5	7. 0	. 5
8	11. 53	8. 92	2. 61	1. 060	. 010	1. 160	—. 110	8. 0	. 5	5. 0	2. 5
Mean	10. 77	8. 11	2. 66	1. 057	. 010	1. 170	—. 124	8. 0	. 5	6. 3	1. 2
S.D.	. 78	. 71	. 54	. 006	. 001	. 026	. 032	. 0	. 0	1. 2	1. 2
C.V. (%)	7	9	20	1	10	2	26	0	0	19	100

TABLE 18.—MINERALS: *Mean daily intake and output of iron, copper, and cobalt for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Iron			Copper				Cobalt			
	Intake	Feces	Difference	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1958											
EIGHT 6-DAY PERIODS											
Diet 8:											
Subject 30:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 1	10. 77	8. 75	2. 02	1. 080	. 020	1. 170	—. 110	9. 9	. 5	7. 0	2. 4
2	10. 42	8. 70	1. 72	1. 060	. 015	1. 190	—. 145	8. 3	. 5	8. 2	—. 4
3	9. 68	9. 03	. 65	1. 065	. 004	1. 410	—. 349	8. 3	. 4	9. 6	−1. 7
4	8. 64	8. 40	. 24	1. 060	. 009	1. 260	—. 209	8. 3	. 5	9. 6	−1. 8
5	9. 41	7. 68	1. 73	1. 060	. 011	1. 230	—. 181	8. 3	. 5	9. 0	−1. 2
Mean	9. 78	8. 51	1. 27	1. 065	. 012	1. 252	—. 199	8. 6	. 5	8. 7	—. 5
S.D	. 84	. 52	. 78	. 009	. 006	. 095	. 092	. 7	. 0	1. 1	1. 7
C.V. (%)	9	6	61	1	50	8	46	8	0	13	340
Diet 8′:											
Subject 30:											
Period 6	10. 68	9. 70	. 98	1. 050	. 011	1. 050	—. 011	8. 0	. 5	7. 0	. 5
7	9. 98	8. 92	1. 06	1. 060	. 012	. 960	. 088	8. 0	. 5	12. 0	−4. 5
8	11. 53	8. 16	3. 37	1. 060	. 010	1. 040	. 010	8. 0	. 8	5. 0	2. 2
Mean	10. 73	8. 93	1. 80	1. 057	. 011	1. 017	. 029	8. 0	. 6	8. 0	—. 6
S.D	. 78	. 77	1. 36	. 006	. 001	. 049	. 052	. 0	. 2	3. 6	3. 5
C.V. (%)	7	9	76	1	9	5	179	0	33	45	583
Diet 8:											
Subject 31:											
Period 1	10. 77	7. 86	2. 91	1. 080	. 014	1. 070	—. 004	9. 9	. 5	7. 0	2. 4
2	10. 42	7. 65	2. 77	1. 060	. 010	1. 030	. 020	8. 3	. 5	8. 2	—. 4
3	9. 68	9. 12	. 56	1. 065	. 004	1. 120	—. 059	8. 3	. 5	8. 5	—. 7
4	8. 64	7. 35	1. 29	1. 060	. 004	1. 140	—. 084	8. 3	. 5	9. 0	−1. 2
5	9. 41	7. 35	2. 06	1. 060	. 005	1. 230	—. 175	8. 3	. 6	7. 0	. 7
Mean	9. 78	7. 87	1. 92	1. 065	. 007	1. 118	—. 060	8. 6	. 5	7. 9	. 2
S.D	. 84	. 73	1. 00	. 009	. 004	. 076	. 076	. 7	. 0	. 9	1. 4
C.V. (%)	9	9	52	1	57	7	127	8	0	11	700
Diet 8′:											
Subject 31:											
Period 6	10. 77	8. 44	2. 33	1. 050	. 009	1. 150	—. 109	8. 0	. 6	6. 0	1. 4
7	9. 98	9. 36	. 62	1. 060	. 006	1. 020	. 034	8. 0	. 5	11. 0	−3. 5
8	11. 53	8. 67	2. 86	1. 060	. 008	. 940	. 112	8. 0	. 6	5. 0	2. 4
Mean	10. 76	8. 82	1. 94	1. 057	. 008	1. 037	. 012	8. 0	. 6	7. 3	. 1
S.D	. 78	. 48	1. 17	. 006	. 002	. 106	. 112	. 0	. 1	3. 2	3. 2
C.V. (%)	7	5	60	1	25	10	933	0	17	44	3, 200
Diet 8:											
Subject 32:											
Period 1	10. 77	7. 08	3. 69	1. 080	. 011	1. 070	—. 001	9. 9	. 5	5. 0	4. 4
2	10. 42	10. 66	—. 24	1. 060	. 015	1. 210	—. 165	8. 3	. 5	5. 5	2. 3
3	9. 68	7. 55	2. 13	1. 065	. 004	1. 120	—. 059	8. 3	. 4	6. 0	1. 9
4	8. 43	10. 35	−1. 92	1. 060	. 008	1. 150	—. 098	8. 2	. 5	6. 9	. 8
5	9. 41	10. 68	−1. 27	1. 060	. 008	1. 250	—. 198	8. 3	. 8	6. 0	1. 5
Mean	9. 74	9. 26	. 48	1. 065	. 009	1. 160	—. 104	8. 6	. 5	5. 9	2. 2
S.D	. 92	1. 79	2. 36	. 009	. 004	. 071	. 079	. 7	. 2	. 7	1. 4
C.V. (%)	9	19	492	1	44	6	76	8	40	12	64

TABLE 18.—MINERALS: *Mean daily intake and output of iron, copper, and cobalt for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Iron			Copper				Cobalt			
	Intake	Feces	Difference	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1958											
EIGHT 6-DAY PERIODS											
Diet 8′:											
Subject 32:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 6	10. 80	8. 92	1. 88	1. 050	. 010	1. 050	—. 010	8. 0	. 8	7. 0	. 2
7	9. 98	10. 04	—. 06	1. 060	. 009	1. 010	. 041	8. 0	. 5	8. 0	—. 5
8	11. 53	8. 30	3. 23	1. 060	. 010	1. 120	—. 070	8. 0	. 5	4. 0	3. 5
Mean	10. 77	9. 09	1. 68	1. 057	. 010	1. 060	—. 013	8. 0	. 6	6. 3	1. 1
S.D	. 78	. 88	1. 65	. 006	. 001	. 056	. 056	. 0	. 2	2. 1	2. 1
C.V. (%)	7	10	98	1	10	5	431	0	33	33	191
Diet 8:											
Subject 33:											
Period 1	10. 77	10. 24	. 53	1. 080	. 014	1. 210	—. 144	9. 9	. 5	6. 7	2. 7
2	10. 42	8. 10	2. 32	1. 060	. 013	1. 210	—. 163	8. 3	. 5	5. 7	2. 1
3	9. 68	9. 67	. 01	1. 065	. 004	1. 280	—. 219	8. 3	. 5	6. 1	1. 7
4	8. 64	8. 40	. 24	1. 060	. 004	1. 230	—. 174	8. 3	. 5	5. 2	2. 6
5	9. 41	7. 58	1. 83	1. 060	. 009	1. 030	. 021	8. 3	. 5	5. 0	2. 8
Mean	9. 78	8. 80	. 99	1. 065	. 009	1. 192	—. 136	8. 6	. 5	5. 7	2. 4
S.D	. 84	1. 11	1. 03	. 009	. 005	. 095	. 092	. 7	. 0	. 7	. 5
C.V. (%)	9	13	104	1	56	8	68	8	0	12	21
Diet 8′:											
Subject 33:											
Period 6	10. 80	9. 18	1. 62	1. 050	. 014	1. 150	—. 114	8. 0	. 5	9. 0	—1. 5
7	9. 98	9. 80	. 18	1. 060	. 014	1. 090	—. 044	8. 0	. 5	7. 0	. 5
8	11. 53	9. 84	1. 69	1. 060	. 012	1. 020	. 028	8. 0	. 5	5. 0	2. 5
Mean	10. 77	9. 61	1. 16	1. 057	. 013	1. 087	—. 043	8. 0	. 5	7. 0	. 5
S.D	. 78	. 37	. 85	. 006	. 001	. 065	. 071	. 0	. 0	2. 0	2. 0
C.V. (%)	7	4	73	1	8	6	165	0	0	29	400
Diet 8:											
Subject 34:											
Period 1	10. 77	7. 63	3. 14	1. 080	. 030	1. 150	—. 100	9. 9	. 5	4. 2	5. 2
2	10. 42	9. 35	1. 07	1. 060	. 010	1. 170	—. 120	8. 3	. 5	4. 2	3. 6
3	9. 68	6. 24	3. 44	1. 065	. 004	. 950	. 111	8. 3	. 4	5. 2	2. 7
4	8. 64	6. 74	1. 90	1. 060	. 004	. 990	. 066	8. 3	. 5	5. 0	2. 8
5	9. 41	9. 33	. 08	1. 060	. 009	1. 750	—. 699	8. 3	. 5	5. 0	2. 8
Mean	9. 78	7. 86	1. 93	1. 065	. 011	1. 202	—. 148	8. 6	. 5	4. 7	3. 4
S.D	. 84	1. 44	1. 41	. 009	. 011	. 321	. 324	. 7	. 0	. 5	1. 1
C.V. (%)	9	18	73	1	100	27	219	8	0	11	32
Diet 8′:											
Subject 34:											
Period 6	10. 80	6. 99	3. 81	1. 050	. 009	. 940	. 101	8. 0	. 5	10. 0	—2. 5
7	9. 98	8. 46	1. 52	1. 060	. 009	1. 070	—. 019	8. 0	. 5	5. 0	2. 5
8	11. 53	8. 72	2. 81	1. 060	. 006	1. 130	—. 076	8. 0	. 7	5. 0	2. 3
Mean	10. 77	8. 06	2. 71	1. 057	. 008	1. 047	. 002	8. 0	. 6	6. 7	. 8
S.D	. 78	. 93	1. 15	. 006	. 002	. 097	. 090	. 0	. 1	2. 9	2. 8
C.V. (%)	7	12	42	1	25	9	4, 500	0	17	43	350

TABLE 18.—MINERALS: *Mean daily intake and output of iron, copper, and cobalt for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Iron			Copper				Cobalt			
	Intake	Feces	Difference	Intake	Urine	Feces	Balance	Intake	Urine	Feces	Balance
1958											
EIGHT 6-DAY PERIODS											
Diet 8:											
Subject 35:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 1	10. 77	14. 25	−3. 48	1. 080	. 023	1. 140	−. 083	9. 9	. 5	8. 0	1. 4
2	10. 60	9. 35	1. 25	1. 060	. 013	1. 160	−. 113	8. 3	. 5	7. 0	. 8
3	9. 60	8. 58	1. 02	1. 079	. 004	1. 240	−. 165	8. 5	. 4	7. 2	. 9
4	8. 56	10. 29	−1. 73	1. 074	. 007	1. 240	−. 173	8. 5	. 5	7. 8	. 2
5	9. 60	9. 86	−. 26	1. 074	. 009	1. 370	−. 305	8. 5	. 6	7. 0	. 9
Mean	9. 83	10. 47	−. 64	1. 073	. 011	1. 230	−. 168	8. 7	. 5	7. 4	. 8
S.D	. 89	2. 21	1. 98	. 008	. 007	. 091	. 085	. 7	. 1	. 5	. 4
C.V. (%)	9	21	309	1	64	7	51	8	20	7	50
Diet 8′:											
Subject 35:											
Period 6	10. 97	6. 69	4. 28	1. 050	. 014	. 009	. 136	8. 0	. 6	6. 0	1. 4
7	10. 21	9. 82	. 39	1. 073	. 011	1. 110	−. 048	8. 3	. 5	10. 0	−2. 2
8	11. 68	8. 28	3. 40	1. 084	. 010	1. 130	−. 056	8. 5	. 7	4. 0	3. 8
Mean	10. 95	8. 26	2. 69	1. 069	. 012	1. 047	. 011	8. 3	. 6	6. 7	1. 0
S.D	. 74	1. 57	2. 04	. 017	. 002	. 127	. 109	. 3	. 1	3. 1	3. 0
C.V. (%)	7	19	76	2	17	12	991	4	17	46	300
Diet 8 (12 subjects):											
Mean	9. 76	8. 53	1. 22	1. 066	0. 010	1. 193	−0. 138	8. 6	0. 5	7. 2	0. 9
S.D	. 81	1. 25	1. 35	. 008	. 007	. 121	. 122	. 6	. 2	1. 5	1. 7
C.V. (%)	8	15	111	1	70	10	88	7	40	21	189
Diet 8′ (12 subjects):											
Mean	10. 76	8. 70	2. 06	1. 058	. 010	1. 077	−. 029	8. 0	. 6	7. 1	. 3
S.D	. 65	. 83	1. 15	. 007	. 002	. 084	. 083	. 1	. 1	2. 4	2. 4
C.V. (%)	6	10	56	1	20	8	286	1	17	34	800

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[1] Value is of doubtful accuracy: chromic oxide used for fecal marker may have interfered with iron assay.

TABLE 19.—MINERALS: *Mean daily intake and output of zinc, manganese, and molybdenum for preadolescent girls in 2 metabolic studies*

[Virginia; 1956—alternate periods; 1958—all periods]

Year, diet, subject, and period	Zinc				Manganese			Molybdenum			
	Intake	Urine	Feces	Balance	Intake	Feces	Difference	Intake	Urine	Feces	Balance
1956											
FOURTEEN 4-DAY PERIODS											
Diet 2:											
Subject 12:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 2	7. 42	0. 14	5. 16	2. 12	1. 66	1. 55	0. 11	74	35	27	12
4	6. 64	. 16	6. 27	. 21	2. 16	2. 10	. 06	72	41	34	−3
6	6. 45	. 15	5. 10	1. 20	2. 05	1. 91	. 14	74	36	21	17
8	5. 30	. 18	4. 69	. 43	1. 84	1. 87	−. 03	65	26	23	16
10	6. 12	. 23	5. 76	. 13	2. 33	2. 56	−. 23	65	54	21	−10
12	6. 46	. 35	4. 70	1. 41	2. 02	1. 71	. 31	72	44	22	6
14	6. 67	. 31	4. 12	2. 24	2. 48	2. 19	. 29	72	44	22	6
Mean	6. 44	. 22	5. 11	1. 11	2. 08	1. 98	. 09	71	40	24	6
S.D	. 64	. 08	. 72	. 88	. 28	. 33	. 19	4	9	5	10
C.V. (%)	10	36	14	79	13	17	211	6	22	21	167
Diet 2:											
Subject 13:											
Period 2	7. 42	. 12	5. 37	1. 93	1. 66	1. 48	. 18	74	32	29	13
4	6. 64	. 13	5. 04	1. 47	2. 16	1. 89	. 27	72	41	28	3
6	6. 45	. 18	5. 24	1. 03	2. 05	2. 17	−. 12	74	36	23	15
8	6. 15	. 23	5. 05	. 87	2. 04	2. 37	−. 33	74	39	26	9
10	6. 27	. 28	4. 61	1. 38	2. 32	2. 00	. 32	75	39	19	17
12	6. 46	. 23	3. 83	2. 40	2. 02	1. 70	. 32	72	36	21	15
14	6. 67	. 23	4. 36	2. 08	2. 48	2. 20	. 28	72	39	22	11
Mean	6. 58	. 20	4. 79	1. 59	2. 10	1. 97	. 13	73	37	24	12
S.D	. 41	. 06	. 55	. 56	. 26	. 31	. 26	1	3	4	5
C.V. (%)	6	30	11	35	12	16	200	1	8	17	42
Diet 2:											
Subject 14:											
Period 2	7. 42	. 16	4. 12	3. 14	1. 66	1. 46	. 20	74	37	23	14
4	6. 64	. 16	6. 04	. 44	2. 16	2. 22	−. 06	72	48	23	1
6	6. 45	. 16	5. 24	1. 05	2. 05	1. 96	. 09	74	46	30	−2
8	6. 15	. 14	5. 47	. 54	2. 04	1. 62	. 42	74	41	23	10
10	6. 27	. 17	4. 69	1. 41	2. 32	1. 94	. 38	75	44	19	12
12	6. 46	. 17	4. 02	2. 27	2. 02	2. 10	−. 08	72	43	21	8
14	6. 67	. 17	4. 45	2. 05	2. 48	2. 00	. 48	72	48	22	2
Mean	6. 58	. 16	4. 86	1. 56	2. 10	1. 90	. 20	73	44	23	6
S.D	. 41	. 01	. 75	. 98	. 26	. 27	. 23	1	4	3	6
C.V. (%)	6	6	15	63	12	14	115	1	9	13	100
3 subjects on diet 2:											
Mean	6. 53	. 19	4. 92	1. 42	2. 10	1. 95	. 14	72	40	24	8
S.D	. 48	. 06	. 66	. 82	. 25	. 29	. 22	3	6	4	7
C.V. (%)	7	32	13	58	12	15	157	4	15	17	88

TABLE 19.—MINERALS: *Mean daily intake and output of zinc, manganese, and molybdenum for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Zinc				Manganese			Molybdenum			
	Intake	Urine	Feces	Balance	Intake	Feces	Difference	Intake	Urine	Feces	Balance
1956											
FOURTEEN 4-DAY PERIODS											
Diet 3:											
Subject 15:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 2	9.32	0.13	6.54	2.65	---	---	---	74	39	19	16
4	9.11	.16	7.93	1.02	2.18	2.06	0.12	74	50	19	5
6	8.70	.12	6.69	1.89	2.02	1.99	.03	72	36	23	13
8	8.83	.19	8.34	.30	2.28	1.73	.55	72	50	19	3
10	8.62	.22	6.31	2.09	2.30	1.68	.62	74	52	21	1
12	9.65	.25	6.57	2.83	2.70	1.52	1.18	82	51	23	8
14	8.74	.29	5.66	2.79	2.12	2.02	.10	70	48	18	4
Mean	9.00	.19	6.86	1.94	2.27	1.83	.43	74	47	20	7
S.D.	.38	.06	.94	.96	.24	.22	.44	4	6	2	6
C.V. (%)	4	32	14	49	11	12	102	5	13	10	86
Diet 3:											
Subject 16:											
Period 2	9.32	.11	5.96	3.25	---	---	---	74	36	10	28
4	9.11	.18	7.89	1.04	2.18	1.94	.24	74	50	20	4
6	8.70	.18	6.75	1.77	2.02	1.76	.26	72	44	24	4
8	8.83	.18	7.57	1.08	2.28	1.68	.60	72	49	20	3
10	8.62	.18	7.17	1.27	2.30	1.68	.62	74	48	23	3
12	9.65	.19	6.46	3.00	2.70	1.99	.71	82	62	19	1
14	8.74	.20	5.22	3.32	2.12	2.05	.07	70	51	19	0
Mean	9.00	.17	6.72	2.10	2.27	1.85	.42	74	49	19	6
S.D.	.38	.03	.93	1.05	.24	.16	.26	4	8	5	10
C.V. (%)	4	18	14	50	11	9	62	5	16	26	167
Diet 3:											
Subject 17:											
Period 2	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---
6	8.70	.15	6.03	2.52	2.02	1.83	.19	72.	44	20	8
8	8.83	.16	7.11	1.56	2.28	1.74	.54	72	43.	23	6
10	8.62	.20	6.92	1.50	2.30	1.68	.62	74	48	19	7
12	9.65	.33	5.66	3.66	2.70	1.97	.73	82	48	22	12
14	8.74	.29	5.96	2.49	2.12	2.17	−.05	70	49	21	0
Mean	8.91	.23	6.34	2.35	2.28	1.88	.41	74	46	21	7
S.D.	.42	.08	.64	.88	.26	.20	.33	5	3	2	4
C.V. (%)	5	35	10	37	11	11	80	7	7	10	57
3 subjects on diet 3:											
Mean	8.97	.20	6.67	2.11	2.27	1.85	.42	74	47	20	7
S.D.	.37	.06	.85	.94	.23	.18	.33	4	6	3	7
C.V. (%)	4	30	13	45	10	10	79	5	13	15	100

TABLE 19.—MINERALS: *Mean daily intake and output of zinc, manganese, and molybdenum for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Zinc				Manganese			Molybdenum			
	Intake	Urine	Feces	Balance	Intake	Feces	Difference	Intake	Urine	Feces	Balance
1956											
FOURTEEN 4-DAY PERIODS											
Diet 4:											
Subject 18:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 2	8.03	0.12	5.57	2.34	2.34	1.55	0.79	72	44	21	7
4	7.96	.16	5.51	2.29	2.78	1.94	.84	74	48	21	5
6	7.55	.16	6.72	.67	3.06	2.20	.86	74	46	22	6
8	7.62	.19	6.65	.78	2.06	2.35	−.29	74	46	23	5
10	7.21	.27	5.75	1.19	3.00	2.65	.35	72	48	23	1
12	7.49	.27	5.29	1.93	3.38	2.55	.83	80	53	23	4
14	7.58	.30	5.27	2.01	2.68	2.64	.04	80	54	26	0
Mean	7.63	.21	5.82	1.60	2.76	2.27	.49	75	48	23	4
S.D.	.28	.07	.61	.71	.45	.41	.46	3	4	2	3
C.V. (%)	4	33	10	44	16	18	94	4	8	9	75
Diet 4:											
Subject 19:											
Period 2	8.03	.15	6.09	1.79	--------	--------	--------	72	41	20	11
4	7.96	.15	7.05	.76	2.78	2.63	.15	74	54	23	−3
6	7.55	.27	6.42	.86	3.06	2.86	.20	74	44	22	8
8	7.62	.29	4.93	2.40	2.06	1.68	.38	74	50	18	6
10	7.21	.32	6.56	.33	3.00	2.60	.40	72	51	20	1
12	7.49	.28	4.37	2.84	3.38	2.15	1.23	80	58	19	3
14	7.58	.32	5.43	1.83	2.68	2.56	.12	80	60	18	2
Mean	7.63	.25	5.84	1.54	2.83	2.41	.41	75	51	20	4
S.D.	.28	.07	.96	.92	.45	.43	.42	3	7	2	5
C.V. (%)	4	28	16	60	16	18	102	4	14	10	125
Diet 4:											
Subject 20:											
Period 2	8.03	.10	5.14	2.79	2.34	2.05	.29	72	39	26	7
4	7.96	.18	5.88	1.90	2.78	2.30	.48	74	53	23	−2
6	7.55	.16	6.60	.79	3.06	2.66	.40	74	50	25	−1
8	6.15	.17	5.27	.71	2.16	1.70	.46	69	42	19	8
10	7.21	.17	5.79	1.25	3.00	2.20	.80	72	57	19	−4
12	7.49	.13	4.36	3.00	3.38	2.48	.90	80	58	14	8
14	7.58	.18	4.69	2.71	2.68	2.56	.12	80	58	23	−1
Mean	7.42	.16	5.39	1.88	2.77	2.28	.49	74	51	21	2
S.D.	.63	.03	.76	.98	.42	.33	.27	4	8	4	5
C.V. (%)	8	19	14	52	15	14	55	5	16	19	250
3 subjects on diet 4:											
Mean	7.56	.21	5.68	1.67	2.78	2.32	.47	75	50	21	3
S.D.	.42	.07	.78	.85	.42	.37	.37	4	6	3	4
C.V. (%)	6	33	14	51	15	16	79	5	12	14	133

TABLE 19.—MINERALS: *Mean daily intake and output of zinc, manganese, and molybdenum for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Zinc				Manganese			Molybdenum			
	Intake	Urine	Feces	Balance	Intake	Feces	Difference	Intake	Urine	Feces	Balance
1956											
FOURTEEN 4-DAY PERIODS											
Diet 5:											
Subject 21:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 2	9.43	0.11	6.49	2.83	-------	-------	-------	74	46	17	11
4	9.31	.18	7.56	1.57	2.72	2.59	0.13	80	59	19	2
6	8.95	.24	7.09	1.62	3.14	2.34	.80	80	54	23	3
8	8.89	.24	7.78	.87	3.02	2.16	.86	82	59	20	3
10	9.06	.27	6.47	2.32	3.22	2.61	.61	84	62	18	4
12	9.91	.23	7.09	2.59	3.48	1.85	1.63	84	59	14	11
14	9.18	.25	6.62	2.31	2.72	2.64	.08	82	55	21	6
Mean	9.25	.22	7.01	2.02	3.05	2.36	.68	81	56	19	6
S.D.	.35	.05	.52	.69	.30	.31	.57	3	5	3	4
C.V. (%)	4	23	7	34	10	13	84	4	9	16	67
Diet 5:											
Subject 22:											
Period 2	9.43	.22	6.88	2.33	-------	-------	-------	74	46	15	13
4	9.31	.13	7.27	1.91	2.72	2.78	—.06	80	64	17	−1
6	8.95	.31	7.76	.88	3.14	2.86	.28	80	54	22	4
8	8.89	.33	7.89	.67	3.02	2.48	.54	82	61	18	3
10	9.06	.39	7.78	.89	3.22	2.97	.25	84	60	21	3
12	9.91	.34	7.65	1.92	3.48	2.94	.54	84	64	20	0
14	9.18	.32	6.12	2.74	2.72	2.24	.48	82	63	21	−2
Mean	9.25	.29	7.34	1.62	3.05	2.71	.34	81	59	19	3
S.D.	.35	.09	.64	.81	.30	.29	.23	3	7	3	5
C.V. (%)	4	31	9	50	10	11	68	4	12	16	167
Diet 5:											
Subject 23:											
Period 2	9.43	.17	5.90	3.36	-------	-------	-------	74	44	17	13
4	9.31	.12	7.99	1.20	2.72	2.71	.01	80	52	19	9
6	8.95	.29	8.39	.27	3.14	2.61	.53	80	54	33	−7
8	8.89	.30	6.86	1.73	3.02	2.10	.92	82	54	45	−17
10	9.06	.35	6.89	1.82	3.22	2.83	.39	84	55	29	0
12	9.91	.28	6.43	3.20	3.48	2.22	1.26	84	61	20	3
14	9.18	.28	6.82	2.08	2.72	3.20	—.48	82	60	21	1
Mean	9.25	.26	7.04	1.95	3.05	2.61	.44	81	54	26	0
S.D.	.35	.08	.87	1.08	.30	.40	.62	3	6	10	10
C.V. (%)	4	31	12	55	10	15	141	4	11	38	∞
3 subjects on diet 5:											
Mean	9.25	.25	7.13	1.86	3.05	2.56	.49	81	56	21	3
S.D.	.33	.08	.67	.85	.28	.35	.50	3	6	7	7
C.V. (%)	4	32	9	46	9	14	102	4	11	33	233
12 subjects in 1956:											
Mean	8.06	0.21	6.09	1.76	2.54	2.17	0.37	76	49	22	5
S.D.	1.18	.07	1.13	.88	.49	.41	.39	5	8	5	7
C.V. (%)	15	33	19	50	19	19	105	7	16	23	140

TABLE 19.—MINERALS: *Mean daily intake and output of zinc, manganese, and molybdenum for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Zinc				Manganese			Molybdenum			
	Intake	Urine	Feces	Balance	Intake	Feces	Difference	Intake	Urine	Feces	Balance
1958											
EIGHT 6-DAY PERIODS											
Diet 8:											
Subject 24:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 1	7. 45	0. 27	3. 03	4. 15	2. 88	2. 12	0. 76	47	50	10	−13
2	7. 20	. 35	4. 81	2. 04	2. 88	1. 51	1. 37	47	32	12	3
3	7. 35	. 37	3. 42	3. 56	2. 88	1. 65	1. 23	47	21	7	19
4	7. 05	. 28	3. 57	3. 20	2. 88	2. 20	. 68	47	24	7	16
5	7. 00	. 24	4. 24	2. 52	2. 98	2. 43	. 55	50	25	8	17
Mean	7. 21	. 30	3. 81	3. 09	2. 90	1. 98	. 92	48	30	9	8
S.D	. 19	. 06	. 71	. 83	. 04	. 39	. 36	1	12	2	14
C.V (%)	3	20	19	27	1	20	39	2	40	22	175
Diet 8′:											
Subject 24:											
Period 6	6. 64	. 25	3. 02	3. 37	2. 85	1. 73	1. 12	42	29	6	7
7	6. 63	. 26	2. 65	3. 72	2. 95	1. 91	1. 04	45	32	5	8
8	6. 50	. 29	2. 93	3. 28	2. 95	1. 96	. 99	42	28	9	5
Mean	6. 59	. 27	2. 87	3. 46	2. 92	1. 87	1. 05	43	30	7	7
S.D	. 08	. 02	. 19	. 23	. 06	. 12	. 07	2	2	2	2
C.V. (%)	1	7	7	7	2	6	7	5	7	29	29
Diet 8:											
Subject 25:											
Period 1	7. 45	. 37	3. 77	3. 31	2. 88	2. 26	. 62	47	31	10	6
2	7. 20	. 32	6. 37	. 51	2. 88	2. 15	. 73	47	29	8	10
3	7. 35	. 31	3. 46	3. 58	2. 88	1. 69	1. 19	47	19	9	19
4	7. 05	. 37	3. 38	3. 30	2. 88	2. 04	. 84	47	24	9	14
5	7. 00	. 28	4. 12	2. 60	2. 98	1. 82	1. 16	50	24	7	19
Mean	7. 21	. 33	4. 22	2. 66	2. 90	1. 99	. 91	48	25	9	14
S.D	. 19	. 04	1. 24	1. 26	. 04	. 23	. 26	1	5	1	6
C.V. (%)	3	12	29	47	1	12	29	2	20	11	43
Diet 8′:											
Subject 25:											
Period 6	6. 64	. 29	2. 75	3. 60	2. 85	1. 27	1. 58	42	29	7	6
7	6. 63	. 31	2. 15	4. 17	2. 95	1. 99	. 96	45	25	7	13
8	6. 50	. 30	2. 68	3. 52	2. 95	1. 81	1. 14	42	24	9	9
Mean	6. 59	. 30	2. 53	3. 76	2. 92	1. 69	1. 23	43	26	8	9
S.D	. 08	. 01	. 33	. 35	. 06	. 37	. 32	2	3	1	4
C.V. (%)	1	3	13	9	2	22	26	5	12	12	44
Diet 8:											
Subject 26:											
Period 1	7. 45	. 25	3. 26	3. 94	2. 88	1. 87	1. 01	47	36	11	0
2	7. 20	. 22	5. 33	1. 65	2. 88	2. 31	. 57	47	28	12	7
3	7. 35	. 32	4. 03	3. 00	2. 88	1. 60	1. 28	47	20	9	18
4	6. 47	. 24	2. 65	3. 58	2. 61	1. 84	. 77	47	19	7	21
5	6. 85	. 23	3. 12	3. 50	2. 79	2. 32	. 47	50	24	7	19
Mean	7. 06	. 25	3. 68	3. 13	2. 81	1. 99	. 82	48	25	9	13
S.D	. 40	. 04	1. 05	. 89	. 12	. 32	. 33	1	7	2	9
C.V. (%)	6	16	29	28	4	16	40	2	28	22	69

TABLE 19.—MINERALS: *Mean daily intake and output of zinc, manganese, and molybdenum for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Zinc				Manganese			Molybdenum			
	Intake	Urine	Feces	Balance	Intake	Feces	Difference	Intake	Urine	Feces	Balance
1958											
EIGHT 6-DAY PERIODS											
Diet 8′:											
Subject 26:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 6	6. 64	. 25	2. 90	3. 49	2. 85	1. 60	1. 25	42	29	8	5
7	6. 10	. 27	1. 50	4. 33	2. 71	2. 02	. 69	45	25	7	13
8	6. 50	. 30	2. 33	3. 87	2. 95	1. 92	1. 03	42	23	8	11
Mean	6. 41	. 27	2. 24	3. 90	2. 84	1. 85	. 99	43	26	8	10
S.D.	. 28	. 03	. 70	. 42	. 12	. 22	. 28	2	3	1	4
C.V. (%)	4	11	31	11	4	12	28	5	12	12	40
Diet 8:											
Subject 27:											
Period 1	7. 45	. 37	3. 46	3. 62	2. 88	2. 23	. 65	47	57	11	−21
2	7. 20	. 39	5. 14	1. 67	2. 88	1. 84	1. 04	47	31	8	8
3	7. 35	. 35	3. 27	3. 73	2. 88	1. 91	. 97	47	22	7	18
4	7. 05	. 23	3. 21	3. 61	2. 88	2. 23	. 65	47	24	7	16
5	7. 00	. 35	2. 60	4. 05	2. 98	1. 88	1. 10	50	25	5	20
Mean	7. 21	. 34	3. 54	3. 34	2. 90	2. 02	. 88	48	32	8	8
S.D.	. 19	. 06	. 95	. 95	. 04	. 20	. 22	1	14	2	17
C.V. (%)	3	18	27	28	1	10	25	2	44	25	212
Diet 8′:											
Subject 27:											
Period 6	6. 64	. 38	2. 68	3. 58	2. 85	1. 24	1. 61	42	31	7	4
7	6. 63	. 40	2. 13	4. 10	2. 95	1. 85	1. 10	45	24	8	13
8	6. 50	. 37	2. 95	3. 18	2. 95	2. 58	. 37	42	26	12	4
Mean	6. 59	. 38	2. 59	3. 62	2. 92	1. 89	1. 03	43	27	9	7
S.D.	. 08	. 02	. 42	. 46	. 06	. 67	. 62	2	4	3	5
C.V. (%)	1	5	16	13	2	35	60	5	15	33	71
Diet 8:											
Subject 28:											
Period 1	7. 45	. 19	3. 34	3. 92	2. 88	2. 17	. 71	47	40	12	−5
2	7. 20	. 19	4. 67	2. 34	2. 88	1. 83	1. 05	47	29	4	14
3	7. 35	. 44	2. 93	3. 98	2. 88	1. 79	1. 09	47	18	7	22
4	7. 05	. 22	3. 96	2. 87	2. 88	1. 98	. 90	47	20	9	18
5	7. 00	. 25	3. 16	3. 59	2. 98	2. 23	. 75	50	26	5	19
Mean	7. 21	. 26	3. 61	3. 34	2. 90	2. 00	. 90	48	27	7	14
S.D.	. 19	. 10	. 70	. 71	. 04	. 20	. 17	1	9	3	11
C.V. (%)	3	38	19	21	1	10	19	2	33	43	79
Diet 8′:											
Subject 28:											
Period 6	6. 64	. 20	2. 60	3. 84	2. 85	1. 49	1. 36	42	30	9	3
7	6. 63	. 23	1. 86	4. 54	2. 95	1. 90	1. 05	45	24	8	13
8	6. 35	. 22	2. 68	3. 45	2. 69	2. 04	. 65	42	24	8	10
Mean	6. 54	. 22	2. 38	3. 94	2. 83	1. 81	1. 02	43	26	8	9
S.D.	. 16	. 02	. 45	. 55	. 13	. 29	. 36	2	3	1	5
C.V. (%)	2	9	19	14	5	16	35	5	12	12	56

TABLE 19.—MINERALS: *Mean daily intake and output of zinc, manganese, and molybdenum for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Zinc				Manganese			Molybdenum			
	Intake	Urine	Feces	Balance	Intake	Feces	Difference	Intake	Urine	Feces	Balance
1958											
EIGHT 6-DAY PERIODS											
Diet 8:											
Subject 29:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 1	7. 45	. 74	5. 26	1. 45	2. 88	2. 64	. 24	47	35	11	1
2	7. 20	. 39	6. 64	. 17	2. 88	1. 78	1. 10	47	29	9	9
3	7. 35	. 45	3. 42	3. 48	2. 88	1. 85	1. 03	47	19	9	19
4	7. 05	. 32	3. 53	3. 20	2. 88	2. 00	. 88	47	20	7	20
5	7. 00	. 35	3. 26	3. 39	2. 98	2. 53	. 45	50	30	3	17
Mean	7. 21	. 45	4. 42	2. 34	2. 90	2. 16	. 74	48	27	8	13
S.D.	. 19	. 17	1. 48	1. 47	. 04	. 40	. 38	1	7	3	8
C.V. (%)	3	38	33	63	1	19	51	2	26	38	62
Diet 8′:											
Subject 29:											
Period 6	6. 64	. 37	2. 44	3. 83	2. 85	1. 44	1. 41	42	30	7	5
7	6. 63	. 39	1. 61	4. 63	2. 95	1. 88	1. 07	45	26	7	12
8	6. 50	. 40	2. 13	3. 97	2. 95	2. 08	. 87	42	24	9	9
Mean	6. 59	. 39	2. 06	4. 14	2. 92	1. 80	1. 12	43	27	8	9
S.D.	. 08	. 02	. 42	. 43	. 06	. 33	. 27	2	3	1	4
C.V. (%)	1	5	20	10	2	18	24	5	11	12	44
Diet 8:											
Subject 30:											
Period 1	7. 45	. 28	4. 00	3. 17	2. 88	2. 06	. 82	47	36	11	0
2	7. 20	. 26	6. 72	. 22	2. 88	2. 09	. 79	47	30	8	9
3	7. 35	. 39	3. 54	3. 42	2. 88	1. 98	. 90	47	17	6	24
4	7. 05	. 29	3. 56	3. 20	2. 88	2. 13	. 75	47	26	7	14
5	7. 00	. 25	3. 69	3. 06	2. 98	2. 37	. 61	50	29	3	18
Mean	7. 21	. 29	4. 30	2. 61	2. 90	2. 13	. 77	48	28	7	13
S.D.	. 19	. 06	1. 36	1. 34	. 04	. 15	. 11	1	7	3	9
C.V. (%)	3	21	32	51	1	7	14	2	25	43	69
Diet 8′:											
Subject 30:											
Period 6	6. 64	. 19	3. 02	3. 43	2. 85	1. 73	1. 12	42	12	8	22
7	6. 63	. 45	2. 66	3. 52	2. 95	1. 87	1. 08	45	30	8	7
8	6. 50	. 21	3. 36	2. 93	2. 95	2. 24	. 71	42	24	9	9
Mean	6. 59	. 28	3. 01	3. 29	2. 92	1. 95	. 97	43	22	8	13
S.D.	. 08	. 14	. 35	. 32	. 06	. 26	. 23	2	9	1	8
C.V. (%)	1	50	12	10	2	13	24	5	41	12	62
Diet 8:											
Subject 31:											
Period 1	7. 45	. 11	2. 64	4. 70	2. 88	2. 02	. 86	47	39	10	−2
2	7. 20	. 15	4. 38	2. 67	2. 88	1. 97	. 91	47	30	3	14
3	7. 35	. 37	2. 95	4. 03	2. 88	1. 88	1. 00	47	20	6	21
4	7. 05	. 20	3. 26	3. 59	2. 88	2. 19	. 69	47	28	7	12
5	7. 00	. 16	2. 55	4. 29	2. 98	2. 20	. 78	50	28	6	16
Mean	7. 21	. 20	3. 16	3. 86	2. 90	2. 05	. 85	48	29	6	12
S.D.	. 19	. 10	. 74	. 78	. 04	. 14	. 12	1	7	3	9
C.V. (%)	3	50	23	20	1	7	14	2	24	50	75

TABLE 19.—MINERALS: *Mean daily intake and output of zinc, manganese, and molybdenum for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Zinc				Manganese			Molybdenum			
	Intake	Urine	Feces	Balance	Intake	Feces	Difference	Intake	Urine	Feces	Balance
1958											
EIGHT 6-DAY PERIODS											
Diet 8′:											
Subject 31:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 6	6. 64	. 16	2. 46	4. 02	2. 85	1. 81	1. 04	42	29	9	4
7	6. 63	. 18	1. 93	4. 52	2. 95	1. 96	. 99	45	30	8	7
8	6. 50	. 18	2. 03	4. 29	2. 95	2. 04	. 91	42	26	8	8
Mean	6. 59	. 17	2. 14	4. 28	2. 92	1. 94	. 98	43	28	8	
S.D.	. 08	. 01	. 28	. 25	. 06	. 12	. 07	2	2	1	2
C.V. (%)	1	6	13	6	2	6	7	5	7	12	33
Diet 8:											
Subject 32:											
Period 1	7. 45	. 25	3. 30	3. 90	2. 88	1. 70	1. 18	47	35	10	2
2	7. 20	. 23	7. 81	—. 84	2. 88	2. 71	. 17	47	30	7	10
3	7. 35	. 40	2. 74	4. 21	2. 88	1. 69	1. 19	47	19	7	21
4	6. 49	. 30	3. 26	2. 93	2. 59	2. 26	. 33	47	20	9	18
5	7. 00	. 27	3. 73	3. 00	2. 98	2. 18	. 80	50	30	3	17
Mean	7. 10	. 29	4. 17	2. 64	2. 84	2. 11	. 73	48	27	7	14
S.D.	. 38	. 07	2. 07	2. 02	. 15	. 43	. 47	1	7	3	8
C.V. (%)	5	24	50	77	5	20	64	2	26	43	57
Diet 8′:											
Subject 32:											
Period 6	6. 64	. 24	2. 73	3. 67	2. 85	1. 78	1. 07	42	33	10	—1
7	6. 63	. 27	1. 97	4. 39	2. 95	1. 88	1. 07	45	30	11	4
8	6. 50	. 25	2. 31	3. 94	2. 95	2. 01	. 94	42	26	10	6
Mean	6. 59	. 25	2. 34	4. 00	2. 92	1. 89	1. 03	43	30	10	3
S.D.	. 08	. 02	. 38	. 36	. 06	. 12	. 08	2	4	1	4
C.V. (%)	1	8	16	9	2	6	8	5	13	10	133
Diet 8:											
Subject 33:											
Period 1	7. 45	. 55	3. 68	3. 22	2. 88	2. 24	. 64	47	42	10	—5
2	7. 20	. 53	5. 75	. 92	2. 88	2. 59	. 29	47	32	6	9
3	7. 35	. 45	2. 86	4. 04	2. 88	1. 97	. 91	47	19	7	21
4	7. 05	. 30	3. 36	3. 39	2. 88	2. 04	. 84	47	28	9	10
5	7. 00	. 37	2. 66	3. 97	2. 98	1. 83	1. 15	50	30	4	16
Mean	7. 21	. 44	3. 66	3. 11	2. 90	2. 13	. 77	48	30	7	10
S.D.	. 19	. 11	1. 23	1. 27	. 04	. 29	. 32	1	8	2	10
C.V. (%)	3	25	34	41	1	14	42	2	27	29	100
Diet 8′:											
Subject 33:											
Period 6	6. 64	. 38	2. 79	3. 47	2. 85	2. 18	. 67	42	34	9	—1
7	6. 63	. 41	2. 36	3. 86	2. 95	2. 01	. 94	45	31	9	5
8	6. 50	. 40	2. 46	3. 64	2. 95	2. 10	. 85	42	24	8	10
Mean	6. 59	. 40	2. 54	3. 66	2. 92	2. 10	. 82	43	30	9	5
S.D.	. 08	. 02	. 23	. 20	. 06	. 09	. 14	2	5	1	6
C.V. (%)	1	5	9	5	2	4	17	5	17	11	120

TABLE 19.—MINERALS: *Mean daily intake and output of zinc, manganese, and molybdenum for preadolescent girls in 2 metabolic studies*—Continued

Year, diet, subject, and period	Zinc				Manganese			Molybdenum			
	Intake	Urine	Feces	Balance	Intake	Feces	Difference	Intake	Urine	Feces	Balance
1958											
EIGHT 6-DAY PERIODS											
Diet 8:											
Subject 34:	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mg.*	*Mcg.*	*Mcg.*	*Mcg.*	*Mcg.*
Period 1	7.45	.31	3.24	3.90	2.88	2.09	.79	47	50	11	−14
2	7.20	.19	6.64	.37	2.88	1.97	.91	47	26	12	9
3	7.35	.30	2.58	4.47	2.88	1.70	1.18	47	17	7	23
4	7.05	.20	2.75	4.10	2.88	2.01	.87	47	25	9	13
5	7.00	.27	3.82	2.91	2.98	1.70	1.28	50	24	6	20
Mean	7.21	.25	3.81	3.15	2.90	1.89	1.01	48	28	9	10
S.D	.19	.06	1.66	1.66	.04	.18	.21	1	13	3	15
C.V. (%)	3	24	44	53	1	10	21	2	46	33	150
Diet 8′:											
Subject 34:											
Period 6	6.64	.24	2.65	3.75	2.85	1.81	1.04	42	27	8	7
7	6.63	.25	2.05	4.33	2.95	2.27	.68	45	25	7	13
8	6.50	.24	2.52	3.74	2.95	1.88	1.07	42	23	9	10
Mean	6.59	.24	2.41	3.94	2.92	1.99	.93	43	25	8	10
S.D	.08	.01	.32	.34	.06	.25	.22	2	2	1	3
C.V. (%)	1	4	13	9	2	13	24	5	8	12	30
Diet 8:											
Subject 35:											
Period 1	7.45	.45	5.22	1.78	2.88	3.67	−.79	47	52	20	−25
2	7.20	.36	6.23	.61	2.88	2.39	.49	47	33	9	5
3	7.62	.36	3.15	4.11	2.90	1.76	1.14	49	21	10	18
4	7.45	.27	3.68	3.50	2.90	2.15	.75	49	26	7	16
5	7.38	.28	4.01	3.09	3.00	2.04	.96	52	27	7	18
Mean	7.42	.34	4.46	2.62	2.91	2.40	.51	49	32	11	6
S.D	.15	.07	1.25	1.41	.05	.74	.77	2	12	5	18
C.V. (%)	2	21	28	54	2	31	151	4	38	45	300
Diet 8′:											
Subject 35:											
Period 6	6.64	.30	2.74	3.60	2.85	1.75	1.10	42	31	8	3
7	7.08	.37	2.34	4.37	2.98	1.96	1.02	47	30	8	9
8	7.33	.34	2.46	4.53	3.00	2.04	.96	49	27	9	13
Mean	7.02	.34	2.51	4.17	2.94	1.92	1.03	46	29	8	8
S.D	.35	.04	.21	.50	.08	.15	.07	4	2	1	5
C.V. (%)	5	12	8	12	3	8	7	9	7	12	62
Diet 8 (12 subjects):											
Mean	7.21	0.31	3.90	2.99	2.89	2.07	0.82	48	28	8	11
S.D	.23	.11	1.21	1.22	.07	.34	.34	1	9	3	11
C.V. (%)	3	35	31	41	2	16	41	2	32	38	100
Diet 8′ (12 subjects):											
Mean	6.61	.29	2.47	3.85	2.90	1.89	1.02	43	27	8	8
S.D	.19	.08	.41	.43	.07	.26	.25	2	4	1	5
C.V. (%)	3	28	17	11	2	14	25	5	15	12	62

TABLE 20.—SULFUR: *Mean daily intake and output of sulfur for selected preadolescent girls in the 1958 metabolic study*

[Virginia; eight 6-day periods]

Subject, diet, and period	Sulfur			
	Intake	Urine	Feces	Balance
Diet 8:				
Subject 24:	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	270. 5	125. 8	87. 9	56. 8
2	255. 1	122. 6	78. 2	54. 3
3	276. 1	120. 8	71. 8	83. 5
4	271. 1	124. 0	83. 9	63. 2
5	264. 3	136. 0	80. 1	48. 2
Mean	267. 4	125. 8	80. 4	61. 2
S.D.	8. 1	6. 0	6. 1	13. 6
C.V. (%)	3	5	8	22
Diet 8′:				
Subject 24:				
Period 6	230. 0	155. 2	105. 2	−30. 4
7	240. 2	117. 8	74. 4	48. 0
8	223. 7	112. 1	66. 9	44. 7
Mean	231. 3	128. 4	82. 2	20. 8
S.D	8. 3	23. 4	20. 3	44. 3
C.V. (%)	4	18	25	213
Diet 8:				
Subject 27:				
Period 1	270. 5	194. 1	71. 0	5. 4
2	255. 1	161. 3	50. 2	43. 6
3	276. 1	154. 8	71. 1	50. 2
4	271. 1	139. 8	68. 0	63. 3
5	264. 3	162. 6	67. 1	34. 6
Mean	267. 4	162. 5	65. 5	39. 4
S.D	8. 1	19. 8	8. 7	21. 7
C.V. (%)	3	12	13	55
Diet 8:′				
Subject 27:				
Period 6	230. 0	136. 6	61. 9	31. 5
7	240. 2	132. 7	62. 6	44. 9
8	223. 7	122. 6	75. 2	25. 9
Mean	231. 3	130. 6	66. 6	34. 1
S.D	8. 3	7. 2	7. 5	9. 8
C.V. (%)	4	6	11	29
Diet 8:				
Subject 31:				
Period 1	270. 5	179. 2	62. 9	28. 4
2	255. 1	136. 0	55. 4	63. 7
3	276. 1	124. 0	73. 5	78. 6
4	271. 1	117. 1	82. 8	71. 2
5	264. 3	121. 6	78. 2	64. 5
Mean	267. 4	135. 6	70. 6	61. 3
S.D	8. 1	25. 4	11. 2	19. 3
C.V. (%)	3	19	16	32
Diet 8′:				
Subject 31:	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 6	230. 0	123. 4	87. 7	18. 9
7	240. 2	101. 2	78. 9	60. 1
8	223. 7	105. 2	69. 6	48. 9
Mean	231. 3	110. 0	78. 7	42. 6
S.D	8. 3	11. 8	9. 1	21. 3
C.V. (%)	4	11	11	50
Diet 8:				
Subject 32:				
Period 1	270. 5	181. 6	51. 7	37. 2
2	255. 1	142. 6	66. 6	45. 9
3	276. 1	154. 3	58. 1	63. 7
4	271. 1	210. 8	72. 3	−12. 0
5	264. 3	157. 4	76. 4	30. 5
Mean	267. 4	169. 3	65. 0	33. 1
S.D	8. 1	27. 2	10. 1	28. 1
C.V. (%)	3	16	16	85
Diet 8′:				
Subject 32:				
Period 6	230. 0	137. 0	66. 1	26. 9
7	240. 2	147. 8	67. 0	25. 4
8	223. 7	122. 2	76. 8	24. 7
Mean	231. 3	135. 7	70. 0	25. 7
S.D	8. 3	12. 9	5. 9	1. 1
C.V. (%)	4	9	8	4
Diet 8:				
Subject 34:				
Period 1	270. 5	200. 8	57. 2	12. 5
2	255. 1	166. 8	81. 3	7. 0
3	276. 1	138. 4	72. 0	65. 7
4	271. 1	184. 9	77. 8	8. 4
5	264. 3	171. 9	85. 8	6. 6
Mean	267. 4	172. 6	74. 8	20. 0
S.D	8. 1	23. 2	11. 1	25. 6
C.V. (%)	3	13	15	128
Diet 8′:				
Subject 34:				
Period 6	230. 0	135. 2	60. 9	33. 9
7	240. 2	104. 7	67. 4	68. 1
8	223. 7	131. 8	65. 5	26. 4
Mean	231. 3	124. 0	64. 6	42. 8
S.D	8. 3	16. 7	3. 3	22. 2
C.V. (%)	4	13	5	52

Table 20.—SULFUR: *Mean daily intake and output of sulfur for selected preadolescent girls in the 1958 metabolic study*—Continued

Subject, diet, and period	Sulfur			
	Intake	Urine	Feces	Balance
Diet 8:				
Subject 35:	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Period 1	270. 5	342. 2	67. 4	−139. 1
2	256. 9	209. 1	53. 8	−6. 0
3	307. 8	195. 6	64. 0	48. 2
4	302. 8	192. 7	72. 0	38. 1
5	298. 7	201. 5	82. 8	14. 4
Mean	287. 3	228. 2	68. 0	−8. 9
S.D	22. 3	64. 0	10. 6	75. 8
C.V. (%)	8	28	16	9
Diet 8′:				
Subject 35:				
Period 6	232. 7	169. 2	58. 3	5. 2
7	280. 3	191. 0	67. 0	22. 3
8	295. 5	171. 3	63. 8	60. 4
Diet 8				
Subject 35	*Mg.*	*Mg.*	*Mg.*	*Mg.*
Mean	269. 5	177. 2	63. 0	29. 3
S.D	32. 8	12. 0	4. 4	28. 3
C.V. (%)	12	7	7	96
Diet 8 (6 subjects):				
Mean	270. 7	165. 7	70. 7	34. 3
S.D	13. 1	44. 8	10. 5	41. 8
C.V. (%)	5	27	15	122
Diet 8′ (6 subjects):				
Mean	237. 7	134. 3	70. 8	32. 5
S.D	19. 5	24. 8	11. 3	22. 8
C.V. (%)	8	18	16	70

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APPENDIX

TABLE 21.—NITROGEN: *Daily intake and output of nitrogen for preadolescent girls in the 1958 metabolic study*

[Periods 1–5, diet 8; periods 6-8, diet 8′]

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 24				
Period 1:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3. 82	1. 54	0. 93	1. 35
2	3. 30	2. 56	. 93	—. 19
3	3. 27	1. 68	. 93	. 66
4	3. 74	1. 84	. 93	. 97
5	3. 54	1. 90	. 93	. 71
6	3. 44	1. 60	. 93	. 91
Mean	3. 52	1. 85	. 93	. 74
Period 2:				
Day 1	3. 82	1. 80	. 77	1. 25
2	3. 30	1. 90	. 77	. 63
3	3. 27	1. 90	. 77	. 60
4	3. 74	1. 96	. 77	1. 01
5	3. 54	1. 94	. 77	. 83
6	3. 44	1. 74	. 77	. 93
Mean	3. 52	1. 87	. 77	. 88
Period 3:				
Day 1	3. 82	1. 72	. 80	1. 30
2	3. 30	2. 08	. 80	. 42
3	3. 27	1. 90	. 80	. 57
4	3. 74	1. 82	. 80	1. 12
5	3. 54	1. 84	. 80	. 90
6	3. 44	1. 86	. 80	. 78
Mean	3. 52	1. 87	. 80	. 85
Period 4:				
Day 1	3. 82	1. 96	. 79	1. 07
2	3. 30	1. 96	. 79	. 55
3	3. 27	1. 82	. 79	. 66
4	3. 74	1. 98	. 79	. 97
5	3. 54	2. 24	. 79	. 51
6	3. 44	1. 86	. 79	. 79
Mean	3. 52	1. 97	. 79	. 76
Period 5:				
Day 1	3. 82	2. 10	. 73	. 99
2	3. 30	1. 90	. 73	. 67
3	3. 27	2. 12	. 73	. 42
4	3. 74	2. 04	. 73	. 97
5	3. 54	2. 12	. 73	. 69
6	3. 44	2. 14	. 73	. 57
Mean	3. 52	2. 07	. 73	. 72
SUBJECT 24				
Period 6:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3. 18	2. 50	. 80	—. 12
2	2. 67	2. 28	. 80	—. 41
3	2. 63	2. 04	. 80	—. 21
4	3. 10	1. 88	. 80	. 42
5	2. 90	1. 96	. 80	. 14
6	2. 81	1. 76	. 80	. 25
Mean	2. 88	2. 07	. 80	. 01
Period 7:				
Day 1	3. 18	1. 70	. 74	. 74
2	2. 67	1. 72	. 74	. 21
3	2. 63	1. 72	. 74	. 17
4	3. 10	1. 64	. 74	. 72
5	2. 90	1. 72	. 74	. 44
6	2. 81	1. 62	. 74	. 45
Mean	2. 88	1. 69	. 74	. 46
Period 8:				
Day 1	3. 18	1. 60	. 78	. 80
2	2. 67	1. 62	. 78	. 27
3	2. 63	1. 66	. 78	. 19
4	3. 10	1. 82	. 78	. 50
5	2. 90	1. 72	. 78	. 40
6	2. 81	1. 60	. 78	. 43
Mean	2. 88	1. 67	. 78	. 43
SUBJECT 25				
Period 1:				
Day 1	3. 82	2. 52	0. 76	0. 54
2	3. 30	2. 52	. 76	. 02
3	3. 27	2. 50	. 76	. 01
4	3. 74	2. 30	. 76	. 68
5	3. 54	2. 90	. 76	—. 12
6	3. 44	2. 60	. 76	. 08
Mean	3. 52	2. 56	. 76	. 20
Period 2:				
Day 1	3. 82	2. 70	. 76	. 36
2	3. 30	2. 32	. 76	. 22
3	3. 27	2. 36	. 76	. 15
4	3. 74	2. 32	76	. 66
5	3. 54	2. 60	. 76	. 18
6	3. 44	2. 12	. 76	. 56
Mean	3. 52	2. 40	. 76	. 36

TABLE 21.—NITROGEN: *Daily intake and output of nitrogen for preadolescent girls in the 1958 metabolic study*—Continued

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 25				
Period 3:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3. 82	2. 10	. 70	1. 02
2	3. 30	2. 06	. 70	. 54
3	3. 27	2. 12	. 70	. 45
4	3. 74	1. 86	. 70	1. 18
5	3. 54	2. 26	. 70	. 58
6	3. 44	2. 34	. 70	. 40
Mean	3. 52	2. 12	. 70	. 70
Period 4:				
Day 1	3. 82	2. 24	. 74	. 84
2	3. 30	2. 36	. 74	. 20
3	3. 27	2. 04	. 74	. 49
4	3. 74	2. 18	. 74	. 82
5	3. 54	2. 60	. 74	. 20
6	3. 44	2. 10	. 74	. 60
Mean	3. 52	2. 25	. 74	. 52
Period 5:				
Day 1	3. 82	2. 52	. 74	. 56
2	3. 30	2. 18	. 74	. 38
3	3. 27	2. 24	. 74	. 29
4	3. 74	2. 18	. 74	. 82
5	3. 54	2. 24	. 74	. 56
6	3. 44	2. 10	. 74	. 60
Mean	3. 52	2. 24	. 74	. 54
Period 6:				
Day 1	3. 18	1. 96	. 67	. 55
2	2. 67	2. 06	. 67	−. 06
3	2. 63	1. 86	. 67	. 10
4	3. 10	1. 90	. 67	. 53
5	2. 90	2. 06	. 67	. 17
6	2. 81	1. 92	. 67	. 22
Mean	2. 88	1. 96	. 67	. 25
Period 7:				
Day 1	3. 19	1. 80	. 75	. 64
2:	2. 68	1. 76	. 75	. 17
3	2. 64	1. 64	. 75	. 25
4	3. 11	1. 84	. 75	. 52
5	2. 91	1. 78	. 75	. 38
6	2. 82	1. 78	. 75	. 29
Mean	2. 89	1. 77	. 75	. 38
Period 8:				
Day 1	3. 19	1. 54	. 72	. 93
2	2. 68	1. 78	. 72	. 18
3	2. 64	1. 50	. 72	. 42
4:	3. 11	1. 68	. 72	. 71
5	2. 91	1. 96	. 72	. 23
6	2. 82	1. 92	. 72	. 18
Mean	2. 89	1. 73	. 72	. 44

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 26				
Period 1:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3. 82	2. 18	0. 68	0. 96
2	3. 30	2. 22	. 68	. 40
3	3. 27	2. 06	. 68	. 53
4	3. 71	1. 70	. 68	1. 33
5	3. 54	1. 98	. 68	. 88
6	3. 44	1. 82	. 68	. 94
Mean	3. 51	1. 99	. 68	. 84
Period 2:				
Day 1	3. 82	1. 84	. 80	1. 18
2	3. 15	1. 62	. 80	. 73
3	3. 27	1. 72	. 80	. 75
4	3. 74	1. 44	. 80	1. 50
5	3. 54	1. 50	. 80	1. 24
6	3. 44	1. 58	. 80	1. 06
Mean	3. 49	1. 62	. 80	1. 08
Period 3:				
Day 1	3. 35	1. 42	. 74	1. 19
2	3. 30	1. 56	. 74	1. 00
3	3. 27	1. 48	. 74	1. 05
4	3. 74	1. 46	. 74	1. 54
5	3. 54	1. 42	. 74	1. 38
6	3. 44	1. 34	. 74	1. 36
Mean	3. 44	1. 45	. 74	1. 25
Period 4:				
Day 1	3. 82	1. 54	. 71	1. 57
2	3. 30	1. 06	. 71	1. 53
3	3. 27	1. 48	. 71	1. 08
4	2. 77	1. 76	. 71	. 30
5	3. 04	2. 14	. 71	. 19
6	3. 44	1. 52	. 71	1. 21
Mean	3. 27	1. 58	. 71	. 98
Period 5:				
Day 1	3. 82	1. 70	. 81	1. 31
2	3. 30	1. 82	. 81	. 67
3	3. 27	1. 72	. 81	. 74
4	3. 74	1. 56	. 81	1. 37
5	2. 78	1. 50	. 81	. 47
6	3. 44	1. 44	. 81	1. 19
Mean	3. 39	1. 62	. 81	. 96
Period 6:				
Day 1	3. 18	1. 42	. 71	1. 05
2	2. 35	1. 56	. 71	. 08
3	2. 63	1. 42	. 71	. 50
4	2. 57	1. 40	. 71	. 46
5	2. 90	1. 64	. 71	. 55
6	2. 81	1. 48	. 71	. 62
Mean	2. 74	1. 49	. 71	. 54

TABLE 21.—NITROGEN: *Daily intake and output of nitrogen for preadolescent girls in the 1958 metabolic study*—Continued

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 26				
Period 7:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	2.86	1.40	.73	.73
2	2.67	1.34	.73	.60
3	2.53	1.40	.73	.40
4	2.43	1.54	.73	.16
5	2.90	1.50	.73	.67
6	2.78	1.28	.73	.77
Mean	2.70	1.41	.73	.56
Period 8:				
Day 1	3.18	1.34	.69	1.15
2	2.67	1.50	.69	.48
3	2.63	1.40	.69	.54
4	3.10	1.38	.69	1.03
5	2.90	1.46	.69	.75
6	2.13	1.46	.69	−.02
Mean	2.77	1.42	.69	.66
SUBJECT 27				
Period 1:				
Day 1	3.82	2.82	0.66	0.34
2	3.30	2.88	.66	−.24
3	3.27	2.50	.66	.11
4	3.74	2.42	.66	.66
5	3.54	2.46	.66	.42
6	3.44	2.38	.66	.40
Mean	3.52	2.58	.66	.28
Period 2:				
Day 1	3.82	2.32	.58	.92
2	3.30	2.24	.58	.48
3	3.27	2.32	.58	.37
4	3.74	2.04	.58	1.12
5	3.54	2.18	.58	.78
6	3.44	2.08	.58	.78
Mean	3.52	2.20	.58	.74
Period 3:				
Day 1	3.82	2.00	.74	1.08
2	3.30	1.63	.74	.93
3	3.27	2.13	.74	.40
4	3.74	2.07	.74	.93
5	3.54	1.98	.74	.82
6	3.44	1.72	.74	.98
Mean	3.52	1.92	.74	.86
Period 4:				
Day 1	3.82	2.20	.66	.96
2	3.30	1.60	.66	1.04
3	3.27	1.90	.66	.71
4	3.74	2.02	.66	1.06
5	3.54	2.32	.66	.56
6	3.44	2.08	.66	.70
Mean	3.52	2.02	.66	.84
SUBJECT 27				
Period 5:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3.82	2.24	.59	.99
2	3.30	2.06	.59	.65
3	3.27	2.06	.59	.62
4	3.74	2.18	.59	.97
5	3.54	2.12	.59	.83
6	3.44	2.18	.59	.67
Mean	3.52	2.14	.59	.79
Period 6:				
Day 1	3.18	2.10	.63	.45
2	2.67	1.90	.63	.14
3	2.63	1.64	.63	.36
4	3.10	1.80	.63	.67
5	2.90	1.70	.63	.57
6	2.81	1.62	.63	.56
Mean	2.88	1.79	.63	.46
Period 7:				
Day 1	3.18	1.54	.62	1.02
2	2.67	1.66	.62	.39
3	2.63	1.68	.62	.33
4	3.10	1.68	.62	.80
5	2.90	1.70	.62	.58
6	2.81	1.68	.62	.51
Mean	2.88	1.66	.62	.60
Period 8:				
Day 1	3.18	1.72	.77	.69
2	2.67	1.54	.77	.36
3	2.63	1.76	.77	.10
4	3.10	1.74	.77	.59
5	2.90	1.84	.77	.29
6	2.81	1.78	.77	.26
Mean	2.88	1.73	.77	.38
SUBJECT 28				
Period 1:				
Day 1	3.82	2.32	0.78	0.72
2	3.30	2.26	.78	.26
3	3.27	1.68	.78	.81
4	3.74	1.82	.78	1.14
5	3.54	2.26	.78	.50
6	3.44	1.98	.78	.68
Mean	3.52	2.05	.78	.68
Period 2:				
Day 1	3.82	1.90	.60	1.32
2	3.30	2.04	.60	.66
3	3.27	1.74	.60	.93
4	3.74	1.98	.60	1.16
5	3.52	1.96	.60	.96
6	3.44	1.90	.60	.94
Mean	3.52	1.92	.60	1.00

TABLE 21.—NITROGEN: *Daily intake and output of nitrogen for preadolescent girls in the 1958 metabolic study*—Continued

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 28				
Period 3:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3. 82	1. 74	. 67	1. 41
2	3. 30	1. 58	. 67	1. 05
3	3. 27	1. 80	. 67	. 80
4	3. 74	1. 82	. 67	1. 25
5	3. 54	1. 52	. 67	1. 35
6	3. 44	1. 84	. 67	. 93
Mean	3. 52	1. 72	. 67	1. 13
Period 4:				
Day 1	3. 82	1. 90	. 69	1. 23
2	2. 76	2. 12	. 69	—. 05
3	3. 27	1. 78	. 69	. 80
4	3. 74	1. 96	. 69	1. 09
5	3. 54	2. 24	. 69	. 61
6	3. 44	1. 98	. 69	. 77
Mean	3. 43	2. 00	. 69	. 74
Period 5:				
Day 1	3. 82	2. 10	. 70	1. 02
2	3. 30	1. 94	. 70	. 66
3	3. 27	2. 00	. 70	. 57
4	3. 74	1. 90	. 70	1. 14
5	3. 54	1. 94	. 70	. 90
6	3. 44	1. 96	. 70	. 78
Mean	3. 52	1. 97	. 70	. 84
Period 6:				
Day 1	3. 18	1. 68	. 69	. 81
2	2. 67	1. 78	. 69	. 20
3	2. 63	1. 68	. 69	. 26
4	3. 10	1. 60	. 69	. 81
5	2. 90	1. 72	. 69	. 49
6	2. 81	1. 66	. 69	. 46
Mean	2. 88	1. 69	. 69	. 50
Period 7:				
Day 1	2. 92	1. 46	. 67	. 79
2	2. 67	1. 48	. 67	. 52
3	2. 63	1. 76	. 67	. 20
4	3. 10	1. 62	. 67	. 81
5	2. 90	1. 82	. 67	. 41
6	2. 81	1. 46	. 67	. 68
Mean	2. 84	1. 60	. 67	. 57
Period 8:				
Day 1	2. 85	1. 46	. 69	. 70
2	2. 67	1. 48	. 69	. 50
3	2. 63	1. 54	. 69	. 40
4	3. 10	1. 64	. 69	. 77
5	2. 90	1. 56	. 69	. 65
6	2. 38	1. 64	. 69	. 05
Mean	2. 76	1. 55	. 69	. 51

Subject, period and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 29				
Period 1:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3. 82	2. 44	0. 62	0. 76
2	3. 30	2. 26	. 62	. 42
3	3. 27	2. 30	. 62	. 35
4	3. 74	2. 24	. 62	. 88
5	3. 54	3. 20	. 62	—. 28
6	3. 44	4. 58	. 62	—1. 76
Mean	3. 52	2. 84	. 62	. 06
Period 2:				
Day 1	3. 82	3. 78	. 52	—. 48
2	3. 30	3. 64	. 52	—. 86
3	3. 27	2. 94	. 52	—. 19
4	3. 74	3. 10	. 52	. 12
5	3. 54	2. 46	. 52	. 56
6	3. 44	2. 28	. 52	. 64
Mean	3. 52	3. 03	. 52	—. 04
Period 3:				
Day 1	3. 82	1. 84	. 60	1. 38
2	3. 30	1. 84	. 60	. 86
3	3. 27	1. 60	. 60	1. 07
4	3. 74	1. 72	. 60	1. 42
5	3. 54	1. 52	. 60	1. 42
6	3. 44	1. 92	. 60	. 92
Mean	3. 52	1. 74	. 60	1. 18
Period 4:				
Day 1	3. 82	2. 02	. 66	1. 14
2	3. 30	2. 02	. 66	. 62
3	3. 27	1. 94	. 66	. 67
4	3. 74	4. 16	. 66	—1. 08
5	3. 54	3. 02	. 66	—. 14
6	3. 44	2. 00	. 66	. 78
Mean	3. 52	2. 53	. 66	. 33
Period 5:				
Day 1	3. 82	2. 10	. 66	1. 06
2	3. 30	2. 14	. 66	. 50
3	3. 27	2. 00	. 66	. 61
4	3. 74	1. 82	. 66	1. 26
5	3. 54	1. 70	. 66	1. 18
6	3. 44	1. 80	. 66	. 98
Mean	3. 52	1. 93	. 66	. 93
Period 6:				
Day 1	3. 18	1. 64	. 50	1. 04
2	2. 67	1. 94	. 50	. 23
3	2. 63	1. 76	. 50	. 37
4	3. 10	1. 36	. 50	1. 24
5	2. 90	1. 68	. 50	. 72
6	2. 81	1. 76	. 50	. 55
Mean	2. 88	1. 69	. 50	. 69

TABLE 21.—NITROGEN: *Daily intake and output of nitrogen for preadolescent girls in the 1958 metabolic study*—Continued

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 29				
Period 7:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3. 18	1. 68	. 60	. 90
2	2. 67	1. 82	. 60	. 25
3	2. 63	1. 88	. 60	. 15
4	3. 10	1. 80	. 60	. 70
5	2. 90	1. 76	. 60	. 54
6	2. 81	1. 70	. 60	. 51
Mean	2. 88	1. 77	. 60	. 51
Period 8:				
Day 1	3. 18	1. 54	. 68	. 96
2	2. 67	1. 68	. 68	. 31
3	2. 63	1. 48	. 68	. 47
4	3. 10	1. 70	. 68	. 72
5	2. 90	1. 82	. 68	. 40
6	2. 81	1. 54	. 68	. 59
Mean	2. 88	1. 63	. 68	. 58
SUBJECT 30				
Period 1:				
Day 1	3. 82	2. 83	0. 69	0. 30
2	3. 30	2. 82	. 69	—. 21
3	3. 27	2. 72	. 69	—. 14
4	3. 74	2. 52	. 69	. 53
5	3. 54	2. 74	. 69	. 11
6	3. 44	2. 24	. 69	. 51
Mean	3. 52	2. 64	. 69	. 18
Period 2:				
Day 1	3. 82	2. 34	. 67	. 81
2	3. 30	2. 92	. 67	—. 29
3	3. 27	2. 66	. 67	—. 06
4	3. 74	2. 38	. 67	. 69
5	3. 54	2. 40	. 67	. 47
6	3. 44	2. 32	. 67	. 45
Mean	3. 52	2. 50	. 67	. 34
Period 3:				
Day 1	3. 82	2. 26	. 70	. 86
2	3. 30	2. 36	. 70	. 24
3	3. 27	2. 16	. 70	. 41
4	3. 74	1. 40	. 70	1. 64
5	3. 54	2. 94	. 70	—. 10
6	3. 44	2. 08	. 70	. 66
Mean	3. 52	2. 20	. 70	. 62
Period 4:				
Day 1	3. 82	2. 26	. 75	. 81
2	3. 30	2. 46	. 75	. 09
3	3. 27	1. 90	. 75	. 62
4	3. 74	2. 02	. 75	. 97
5	3. 54	2. 92	. 75	—. 13
6	3. 44	2. 72	. 75	—. 03
Mean	3. 52	2. 38	. 75	. 39

Subject, period and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 30				
Period 5:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3. 82	3. 16	. 71	—. 05
2	3. 30	1. 72	. 71	. 87
3	3. 27	2. 96	. 71	—. 40
4	3. 74	2. 44	. 71	. 59
5	3. 54	2. 54	. 71	. 29
6	3. 44	2. 60	. 71	. 13
Mean	3. 52	2. 57	. 71	. 24
Period 6:				
Day 1	3. 18	2. 38	. 72	. 08
2	2. 67	1. 52	. 72	. 43
3	2. 63	1. 96	. 72	—. 05
4	3. 10	2. 14	. 72	. 24
5	2. 81	2. 22	. 72	—. 13
6	2. 81	2. 02	. 72	. 07
Mean	2. 87	2. 04	. 72	. 11
Period 7:				
Day 1	3. 19	1. 90	. 85	. 44
2	2. 68	1. 82	. 85	. 01
3	2. 64	1. 72	. 85	. 07
4	3. 11	1. 54	. 85	. 72
5	2. 91	1. 54	. 85	. 52
6	2. 82	1. 96	. 85	. 01
Mean	2. 89	1. 75	. 85	. 30
Period 8:				
Day 1	3. 19	1. 40	. 78	1. 01
2	2. 68	1. 76	. 78	. 14
3	2. 64	1. 46	. 78	. 40
4	3. 11	1. 58	. 78	. 75
5	2. 91	1. 60	. 78	. 53
6	2. 82	1. 76	. 78	. 28
Mean	2. 89	1. 59	. 78	. 52
SUBJECT 31				
Period 1:				
Day 1	3. 82	2. 02	0. 66	1. 14
2	3. 30	1. 68	. 66	. 96
3	3. 27	1. 84	. 66	. 77
4	3. 74	1. 48	. 66	1. 60
5	3. 54	1. 88	. 66	1. 00
6	3. 44	1. 74	. 66	1. 04
Mean	3. 52	1. 77	. 66	1. 08
Period 2:				
Day 1	3. 82	1. 76	. 56	1. 50
2	3. 30	1. 86	. 56	. 88
3	3. 27	1. 70	. 56	1. 01
4	3. 74	1. 68	. 56	1. 50
5	3. 54	1. 84	. 56	1. 14
6	3. 44	1. 82	. 56	1. 06
Mean	3. 52	1. 78	. 56	1. 18

TABLE 21.—NITROGEN: *Daily intake and output of nitrogen for preadolescent girls in the 1958 metabolic study*—Continued

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 31				
Period 3:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3.82	1.96	.73	1.13
2	3.30	1.58	.73	.99
3	3.27	1.56	.73	.98
4	3.74	1.68	.73	1.33
5	3.54	1.82	.73	.99
6	3.44	1.72	.73	.99
Mean	3.52	1.72	.73	1.07
Period 4:				
Day 1	3.82	1.82	.73	1.27
2	3.30	1.64	.73	.93
3	3.27	1.66	.73	.88
4	3.74	1.84	.73	1.17
5	3.54	2.02	.73	.79
6	3.44	1.86	.73	.85
Mean	3.52	1.81	.73	.98
Period 5:				
Day 1	3.82	1.94	.65	1.23
2	3.30	1.74	.65	.91
3	3.27	1.82	.65	.80
4	3.74	1.72	.65	1.37
5	3.54	1.76	.65	1.13
6	3.44	1.76	.65	1.03
Mean	3.52	1.79	.65	1.08
Period 6:				
Day 1	2.99	1.92	.78	.29
2	2.67	1.84	.78	.05
3	2.63	1.62	.78	.23
4	3.10	1.54	.78	.78
5	2.90	1.56	.78	.56
6	2.81	1.66	.78	.37
Mean	2.85	1.69	.78	.38
Period 7:				
Day 1	3.18	1.52	.75	.91
2	2.67	1.64	.75	.28
3	2.63	1.56	.75	.32
4	3.10	1.50	.75	.85
5	2.90	1.44	.75	.71
6	2.81	1.40	.75	.66
Mean	2.88	1.51	.75	.62
Period 8:				
Day 1	3.18	1.50	.68	1.00
2	2.67	1.40	.68	.59
3	2.63	1.28	.68	.67
4	3.10	1.56	.68	.86
5	2.90	1.72	.68	.50
6	2.81	1.44	.68	.69
Mean	2.88	1.48	.68	.72

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 32				
Period 1:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3.82	2.46	0.60	0.76
2	3.30	2.24	.60	.46
3	3.27	2.24	.60	.43
4	3.74	2.34	.60	.80
5	3.54	2.40	.60	.54
6	3.44	2.14	.60	.70
Mean	3.52	2.30	.60	.62
Period 2:				
Day 1	3.82	2.10	.72	1.00
2	3.30	2.32	.72	.26
3	3.27	2.22	.72	.33
4	3.74	2.38	.72	.64
5	3.54	2.16	.72	.66
6	3.44	2.12	.72	.60
Mean	3.52	2.22	.72	.58
Period 3:				
Day 1	3.82	2.00	.66	1.16
2	3.30	2.24	.66	.40
3	3.27	1.96	.66	.65
4	3.74	2.04	.66	1.04
5	3.52	2.04	.66	.82
6	3.44	2.10	.66	.68
Mean	3.52	2.06	.66	.79
Period 4:				
Day 1	3.82	2.06	.78	.98
2	3.30	2.26	.78	.26
3	2.98	2.44	.78	−.24
4	2.85	2.34	.78	−.27
5	3.54	2.88	.78	−.12
6	3.44	2.46	.78	.20
Mean	3.32	2.41	.78	.14
Period 5:				
Day 1	3.82	2.34	.72	.76
2	3.30	2.14	.72	.44
3	3.27	1.90	.72	.65
4	3.74	1.92	.72	1.10
5	3.54	2.16	.72	.66
6	3.44	2.06	.72	.66
Mean	3.52	2.09	.72	.71
Period 6:				
Day 1	3.18	1.86	.69	.63
2	2.67	1.88	.69	.10
3	2.63	1.54	.69	.40
4	3.10	1.66	.69	.75
5	2.90	1.92	.69	.29
6	2.81	1.88	.69	.24
Mean	2.88	1.79	.69	.40

TABLE 21.—NITROGEN: *Daily intake and output of nitrogen for preadolescent girls in the 1958 metabolic study*—Continued

Subject, period and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 32				
Period 7:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3.18	1.70	.68	.80
2	2.67	1.94	.68	.05
3	2.63	1.70	.68	.25
4	3.10	1.82	.68	.60
5	2.90	1.72	.68	.50
6	2.81	1.76	.68	.37
Mean	2.88	1.77	.68	.43
Period 8:				
Day 1	3.18	1.66	.76	.76
2	2.67	1.54	.76	.37
3	2.63	1.78	.76	.09
4	3.10	1.60	.76	.74
5	2.90	1.64	.76	.50
6	2.81	1.62	.76	.43
Mean	2.88	1.64	.76	.48
SUBJECT 33				
Period 1:				
Day 1	3.82	2.66	0.79	0.37
2	3.30	2.58	.79	−.07
3	3.27	2.30	.79	.18
4	3.74	2.48	.79	.47
5	3.54	2.62	.79	.13
6	3.44	2.53	.79	.12
Mean	3.52	2.53	.79	.20
Period 2:				
Day 1	3.82	1.62	.63	1.57
2	3.30	2.90	.63	−.23
3	3.27	2.24	.63	.40
4	3.74	2.26	.63	.85
5	3.54	2.40	.63	.51
6	3.44	2.10	.63	.71
Mean	3.52	2.25	.63	.64
Period 3:				
Day 1	3.82	1.90	.72	1.20
2	3.30	2.02	.72	.56
3	3.27	1.64	.72	.91
4	3.74	1.84	.72	1.18
5	3.54	1.54	.72	1.28
6	3.44	2.52	.72	.20
Mean	3.52	1.91	.72	.89
Period 4:				
Day 1	3.82	1.86	.71	1.25
2	3.30	1.90	.71	.69
3	3.27	1.82	.71	.74
4	3.74	2.32	.71	.71
5	3.54	2.20	.71	.63
6	3.44	2.26	.71	.47
Mean	3.52	2.06	.71	.75
SUBJECT 33				
Period 5:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3.82	2.24	.56	1.02
2	3.30	1.62	.56	1.12
3	3.27	3.00	.56	−.29
4	3.74	2.12	.56	1.06
5	3.54	2.20	.56	.78
6	3.44	2.34	.56	.54
Mean	3.52	2.25	.56	.70
Period 6:				
Day 1	3.18	2.12	.69	.37
2	2.67	2.16	.69	−.18
3	2.63	1.80	.69	.14
4	3.10	1.90	.69	.51
5	2.90	2.14	.69	.07
6	2.81	2.04	.69	.08
Mean	2.88	2.03	.69	.16
Period 7:				
Day 1	3.18	1.62	.73	.83
3	2.67	2.10	.73	−.16
3	2.63	1.80	.73	.10
4	3.10	1.96	.73	.41
5	2.90	1.72	.73	.45
6	2.81	1.92	.73	.16
Mean	2.88	1.85	.73	.30
Period 8:				
Day 1	3.18	1.68	.64	.86
2	2.67	1.90	.64	.13
3	2.63	1.44	.64	.55
4	3.10	1.70	.64	.76
5	2.90	1.94	.64	.32
6	2.81	1.92	.64	.25
Mean	2.88	1.76	.64	.48
SUBJECT 34				
Period 1:				
Day 1	3.82	2.68	0.63	0.51
2	3.30	2.74	.63	−.07
3	3.27	2.50	.63	.14
4	3.74	1.73	.63	1.38
5	3.54	2.46	.63	.45
6	3.44	2.60	.63	.21
Mean	3.52	2.45	.63	.44
Period 2:				
Day 1	3.82	2.18	.86	.78
2	3.30	2.26	.86	.18
3	3.27	2.12	.86	.29
4	3.74	2.18	.86	.70
5	3.54	2.22	.86	.46
6	3.44	2.00	.86	.58
Mean	3.52	2.16	.86	.50

TABLE 21.—NITROGEN: *Daily intake and output of nitrogen for preadolescent girls in the 1958 metabolic study*—Continued

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 34				
Period 3:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3.82	1.76	.72	1.34
2	3.30	1.90	.72	.68
0	3.27	2.04	.72	.51
4	3.74	1.86	.72	1.16
5	3.54	2.04	.72	.78
6	3.44	1.98	.72	.74
Mean	3.52	1.93	.72	.87
Period 4:				
Day 1	3.82	2.16	.78	.88
2	3.30	2.00	.78	.52
3	3.27	2.18	.78	.31
4	3.74	2.34	.78	.62
5	3.54	3.06	.78	−.30
6	3.44	3.22	.78	−.56
Mean	3.52	2.49	.78	.24
Period 5:				
Day 1	3.82	3.46	.91	−.55
2	3.30	2.60	.91	−.21
3	3.27	1.90	.91	.46
4	3.74	2.00	.91	.83
5	3.54	2.15	.91	.48
6	3.44	2.10	.91	.43
Mean	3.52	2.37	.91	.24
Period 6:				
Day 1	3.18	2.00	.65	.53
2	2.67	1.92	.65	.10
3	2.63	1.74	.65	.24
4	3.10	1.68	.65	.77
5	2.90	1.82	.65	.43
6	2.80	1.72	.65	.43
Mean	2.88	1.81	.65	.42
Period 7:				
Day 1	3.18	1.80	.74	.64
2	2.67	1.74	.74	.19
3	2.63	1.76	.74	.13
4	3.10	1.68	.74	.68
5	2.90	1.96	.74	.20
6	2.81	1.72	.74	.35
Mean	2.88	1.78	.74	.36
Period 8:				
Day 1	3.18	1.70	.72	.76
2	2.67	1.84	.72	.11
3	2.63	1.66	.72	.25
4	3.10	1.66	.72	.72
5	2.90	1.76	.72	.42
6	2.81	1.68	.72	.41
Mean	2.88	1.72	.72	.44

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 35				
Period 1:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3.82	3.50	0.72	−0.40
2	3.30	3.00	.72	−.42
3	3.27	3.10	.72	−.55
4	3.74	2.76	.72	.26
5	3.54	2.88	.72	−.06
6	3.44	2.78	.72	−.06
Mean	3.52	3.00	.72	−.20
Period 2:				
Day 1	3.82	3.02	.60	.20
2	3.30	2.80	.60	−.10
3	3.28	2.60	.60	.08
4	3.75	2.60	.60	.55
5	3.55	2.72	.60	.23
6	3.45	2.55	.60	.30
Mean	3.52	2.72	.60	.21
Period 3:				
Day 1	4.36	2.24	.72	1.40
2	3.84	2.28	.72	.84
3	3.81	2.40	.72	.69
4	4.28	2.58	.72	.98
5	4.08	2.62	.72	.74
6	3.98	2.94	.72	.32
Mean	4.06	2.51	.72	.83
Period 4:				
Day 1	4.36	2.60	.66	1.10
2	3.84	2.52	.66	.66
3	3.81	2.52	.66	.63
4	4.28	2.68	.66	.94
5	4.08	3.22	.66	.20
6	3.98	2.60	.66	.72
Mean	4.06	2.69	.66	.71
Period 5:				
Day 1	4.37	2.86	.79	.72
2	3.85	2.52	.79	.54
3	3.82	2.66	.79	.37
4	4.29	2.38	.79	1.12
5	4.09	2.80	.79	.50
6	3.99	2.58	.79	.62
Mean	4.07	2.63	.79	.64
Period 6:				
Day 1	3.19	2.54	.62	.03
2	2.68	2.32	.62	−.26
3	2.64	2.06	.62	−.04
4	3.11	2.10	.62	.39
5	2.91	2.34	.62	−.05
6	2.82	2.32	.62	−.12
Mean	2.89	2.28	.62	−.01

TABLE 21.—NITROGEN: *Daily intake and output of nitrogen for preadolescent girls in the 1958 metabolic study*—Continued

Subject, period, and day	Nitrogen			
	Intake	Urine	Feces	Balance
SUBJECT 35				
Period 7:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3. 82	2. 10	. 76	. 96
2	3. 31	2. 28	. 76	. 27
3	3. 27	2. 14	. 76	. 37
4	3. 74	2. 48	. 76	. 50
5	3. 54	2. 30	. 76	. 48
6	3. 45	2. 54	. 76	. 15
Mean	3. 52	2. 31	. 76	. 46
Period 8:				
Day 1	4. 36	2. 38	. 69	1. 29
2	3. 85	2. 38	. 69	. 78
3	3. 81	2. 26	. 69	. 86
4	4. 28	2. 40	. 69	1. 19
5	4. 08	2. 58	. 69	. 81
6	3. 99	2. 46	. 69	. 84
Mean	4. 06	2. 41	. 69	. 96
SUBJECT 12				
Period 3:				
Day 1	-------	-------	-------	-------
2	-------	-------	-------	-------
3	-------	-------	-------	-------
4	-------	-------	-------	-------
5	-------	-------	-------	-------
6	3. 44	4. 47	-------	-------
Mean	3. 44	4. 47	-------	-------
Period 4:				
Day 1	3. 82	3. 38	0. 68	−0. 24
2	3. 30	2. 78	. 68	−. 16
3	3. 27	2. 12	. 68	. 47
4	3. 74	1. 82	. 68	1. 24
5	3. 54	2. 14	. 68	. 72
6	3. 44	1. 96	. 68	. 80
Mean	3. 52	2. 37	. 68	. 47
SUBJECT 12				
Period 5:	*Grams*	*Grams*	*Grams*	*Grams*
Day 1	3. 82	1. 96	. 66	1. 20
2	3. 30	1. 78	. 66	. 86
3	3. 27	2. 18	. 66	. 43
4	3. 74	1. 82	. 66	1. 26
5	3. 54	1. 92	. 66	. 96
6	3. 44	1. 96	. 66	. 82
Mean	3. 52	1. 94	. 66	. 92
Period 6:				
Day 1	3. 18	1. 94	. 67	. 57
2	2. 67	1. 82	. 67	. 18
3	2. 63	1. 82	. 67	. 14
4	3. 10	1. 82	. 67	. 61
5	2. 90	1. 82	. 67	. 41
6	2. 81	1. 80	. 67	. 34
Mean	2. 88	1. 84	. 67	. 38
Period 7:				
Day 1	3. 18	1. 70	. 55	. 93
2	2. 67	1. 94	. 55	. 18
3	2. 63	1. 84	. 55	. 24
4	3. 10	1. 94	. 55	. 61
5	2. 90	1. 76	. 55	. 59
6	2. 81	1. 70	. 55	. 56
Mean	2. 88	1. 81	. 55	. 52
Period 8:				
Day 1	3. 18	1. 66	. 80	. 72
2	2. 67	1. 70	. 80	. 17
3	2. 63	1. 50	. 80	. 33
4	3. 10	1. 70	. 80	. 60
5	2. 90	1. 88	. 80	. 22
6	2. 81	1. 66	. 80	. 35
Mean	2. 88	1. 68	. 80	. 40

TABLE 22.—*Amounts of foods in the daily menus for each 4-day metabolic period in the 1954 study (diet 1)*

Day and meals [1]	Diet 1 [2]
Day 1:	
Breakfast:	*Grams*
Orange juice (frozen)	60
Cornflakes, enriched	20
Sugar, dark brown	14
Bread	20
Margarine	5
Jelly	10
Milk	244
Lunch:	
Liver sausage	30
Lettuce	10
Mayonnaise	5
Bun	30
Coconut bars	20
Custard, baked [3]	[4] 105
Milk	244
Snack:	
Lemonade (frozen)	200
Cookies, waffle cream	20
Raisins	25
Dinner:	
Beef roast	30
Rice, converted	50
Gravy, drippings	20
Broccoli (frozen)	50
Ice cream, vanilla	80
Roll	25
Margarine	5
Snack:	
Raisins	25
Peanut butter	15
Jelly	10
Bread	20
Day 2:	
Breakfast:	
Pineapple juice, canned	100
Oatmeal, cooked, enriched	75
Bread	20
Jelly	10
Margarine	5
Milk	244
Sugar	4
Lunch:	
Tomato soup, condensed	60
Bread	40
Salmon, red	40
Lettuce	10
Mayonnaise	5
Banana	50
Orange	50
Gelatin dessert	100
Sugar	4
Milk	60
Snack:	
Crackers, graham	21
Milk	150
Chocolate syrup	20
Dinner:	
Ham, baked	50
Potato, mashed [3]	60
Beans, snap	50
Gingerbread (mix)	40
Applesauce, canned	70
Milk	92
Sugar	4
Bread	10
Margarine	5
Snack:	
Bread	20
Peanut butter	5
Jelly	10
Day 3:	
Breakfast:	*Grams*
Orange juice (frozen)	100
Puffed wheat, enriched	12
Roll	40
Jelly	10
Margarine	10
Milk	244
Sugar, dark brown	14
Lunch:	
Prune juice, canned	50
Beef, corned	28
Peas, green (frozen)	50
Bread	20
Margarine	10
Peaches, canned	70
Milk	122
Snack:	
Cookies, molasses [3]	15
Milk	92
Dinner:	
Beef, ground	[4] 56
Potato, mashed	60
Carrots, raw	2
Cake, angel food (bakery)	30
Icing [3]	15
Ice cream, vanilla	60
Milk	122
Margarine	5
Snack:	
Bread	20
Jelly	10
Raisins	25
Cheese, cream	15
Day 4:	
Breakfast:	
Orange juice (frozen)	100
Egg, scrambled	50
Bread, toasted	20
Margarine	5
Jelly	10
Milk	125
Lunch:	
Ham, baked	25
Lettuce	5
Mayonnaise	10
Bread	40
Prunes, Italian, canned	122
Cookies, butter	20
Milk	244
Snack:	
Grape juice	150
Crackers, graham	21
Dinner:	
Chicken (frozen)	40
Beans, lima, green (frozen)	50
Roll	25
Margarine	10
Milk	200
Cake, spice (mix)	50
Icing, brown sugar [3]	30
Snack:	
Banana	150

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[1] All milk was whole, homogenized, and fortified with vitamin D; all bread, enriched, one lot from bakery.

[2] Weight given as served; original state as purchased given in parentheses in first column.

[3] Recipe given in appendix table 26.

[4] Uncooked weight. Portions were weighed into individual dishes in which they were cooked and served.

TABLE 23.—*Amounts of foods in the daily menus for each 4-day metabolic period in the 1956 study (diets 2, 3, 4, and 5)*

Day and meals [1]	Low protein		High protein	
	Low calorie	High calorie	Low calorie	High calorie
	Diet 2 [2]	Diet 4 [2]	Diet 3 [2]	Diet 5 [2]
Day 1:				
Breakfast:	*Grams*	*Grams*	*Grams*	*Grams*
Orange juice (frozen)	120	120	120	120
Cornflakes, enriched	----	----	20	20
Branflakes, enriched	20	20	----	----
Sugar, dark brown	14	14	14	14
Apple butter	20	20	20	20
Bread	20	20	[3] 20	[3] 20
Margarine	5	5	5	5
Milk	200	200	200	200
Snack:				
Kool Aid	----	----	----	----
Raisins	25	25	25	25
Lunch:				
Bouillon cube	4	4	----	----
Liver sausage	20	20	----	----
Chicken, canned	----	----	50	50
Carrot, raw	----	----	10	10
Bread	40	40	[3] 40	[3] 40
Lettuce	10	10	10	10
Mayonnaise	5	5	5	5
Pears, canned	117	117	117	117
Cookies, molasses [4]	15	15	15	15
Milk	150	150	150	150
Snack:				
Kool Aid	----	----	----	----
Cookies, coconut	30	60	30	30
Dinner:				
Beef roast	25	25	80	80
Gravy, drippings	20	20	20	20
Potato	50	50	50	50
Asparagus, green, canned	50	50	50	50
Ice cream, vanilla	80	80	80	80
Chocolate syrup	20	20	----	----
Margarine	5	5	5	5
Milk	200	200	200	200
Other:				
Gelatin [5] in Kool Aid	----	10	----	19
Sugar in Kool Aid	60	125	27	77
Margarine	10	10	----	10
Pineapple juice (fresh)	----	20	----	38
Day 2:				
Breakfast:				
Orange juice (frozen)	----	----	50	50
Pineapple juice (frozen)	120	120	120	120
Ralston, enriched	[6] 20	[6] 20	----	----
Sugar, dark brown	14	14	----	----
Jelly	10	10	----	----
Cream	----	30	----	----
Egg	----	----	45	45
Bread	20	20	[3] 20	[3] 20
Margarine	5	5	5	5
Milk	150	150	150	150
Snack:				
Kool Aid	----	----	----	----
Milk	----	----	150	----
Crackers, graham	14	14	14	14

See footnotes at end of table, p. 160.

TABLE 23.—*Amounts of foods in the daily menus for each 4-day metabolic period in the 1956 study (diets 2, 3, 4, and 5)*—Continued

Day and meals [1]	Low protein		High protein	
	Low calorie	High calorie	Low calorie	High calorie
	Diet 2 [2]	Diet 4 [2]	Diet 3 [2]	Diet 5 [2]
Day 2—Continued				
Lunch:	*Grams*	*Grams*	*Grams*	*Grams*
Tomato soup, condensed	60	60	60	60
Milk	60	60	60	60
Tuna fish (oil pack)	30	30	30	30
Bread	40	40	[3] 40	[3] 40
Lettuce	10	10	10	10
Mayonnaise	10	10	10	10
Applesauce, canned	100	100	100	100
Sugar wafer	----	----	30	60
Milk	140	140	90	140
Snack:				
Kool Aid	----	----	----	----
Raisins	25	25	25	25
Dinner:				
Ham, baked	25	50	75	75
Potato, boiled	50	50	50	50
Broccoli (frozen)	50	----	----	----
Beans, lima, green (frozen)	----	75	100	100
Gingerbread (mix)	40	40	40	40
Hard sauce [4]	----	21	----	----
Bread	----	----	[3] 10	[3] 10
Margarine	10	10	10	10
Milk	200	200	100	200
Other:				
Gelatin [5] in Kool Aid	----	----	----	17
Sugar in Kool Aid	85	100	14	54
Margarine	5	10	----	----
Pineapple juice (fresh):	----	----	----	34
Day 3:				
Breakfast:				
Orange juice (frozen)	90	90	90	90
Wheat flakes, enriched	12	20	12	20
Sugar, dark brown	14	21	14	14
Cream	30	30	----	30
Egg	----	----	50	50
Bread	20	20	[3] 20	[3] 20
Margarine	5	5	5	5
Milk	200	200	200	200
Snack:				
Kool Aid	----	----	----	----
Crackers, graham	7	7	7	14
Lunch:				
Prune juice, canned	100	100	100	100
Cheese food	15	15	35	35
Bread	40	40	[3] 40	[3] 40
Lettuce	10	10	10	10
Mayonnaise	5	5	5	5
Peaches, canned	70	----	70	70
Cake, yellow (mix)	----	30	----	----
Frosting (mix)	----	15	----	----
Milk	150	150	150	150
Snack:				
Kool Aid	----	----	----	----
Crackers, graham	7	7	7	----
Bread	----	----	----	[3] 20
Peanut butter	----	----	15	15

See footnotes at end of table, p. 160.

TABLE 23.—*Amounts of foods in the daily menus for each 4-day metabolic period in the 1956 study (diets 2, 3, 4, and 5)*—Continued

Day and meals[1]	Low protein		High protein	
	Low calorie	High calorie	Low calorie	High calorie
	Diet 2 [2]	Diet 4 [2]	Diet 3 [2]	Diet 5 [2]
Day 3—Continued				
Dinner:	*Grams*	*Grams*	*Grams*	*Grams*
Beef, ground	30	50	55	50
Potato	75	100	50	75
Peas, green (frozen)	60	60	60	60
Ice cream, vanilla	60	60	60	60
Cookies, coconut	----	----	----	30
Bread	10	10	[3] 10	----
Margarine	10	10	10	10
Milk	200	200	200	200
Other:				
Gelatin [5] in Kool Aid	----	5	5	18
Sugar in Kool Aid	86	102	54	74
Margarine	15	15	5	5
Pineapple juice (fresh)	----	10	10	35
Day 4:				
Breakfast:				
Orange juice (frozen)	120	120	120	120
Ralston, enriched	[6] 25	[6] 25	[6] 25	[6] 25
Dates	40	40	40	40
Sugar, dark brown	14	14	14	14
Jelly	10	10	10	10
Bread	20	20	[3] 20	[3] 20
Margarine	5	5	5	5
Milk	200	200	200	200
Snack:				
Kool Aid	----	----	----	----
Crackers, graham	7	7	7	7
Peanut butter	10	10	----	----
Lunch:				
Cheese food	28	28	28	28
Chicken, canned	----	----	45	45
Bread	40	40	[3] 40	[3] 40
Lettuce	10	10	10	10
Mayonnaise	5	5	5	5
Plums, canned	100	100	100	100
Milk	150	150	150	150
Snack:				
Kool Aid	----	----	----	----
Crackers, graham	7	7	7	7
Dinner:				
Ham, baked	30	55	65	65
Potato	50	50	50	50
Beans, snap (frozen)	40	40	40	40
Apricots, canned	100	100	100	100
Cookies, butter	----	60	----	30
Margarine	10	10	10	10
Milk	200	200	200	200
Other:				
Gelatin [5] in Kool Aid	----	----	6	22
Sugar in Kool Aid	84	93	26	99
Pineapple juice (fresh)	----	----	12	44

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[1] All milk was whole, homogenized, and fortified with vitamin D.
[2] Weight given as served; original state as purchased given in parentheses in first column.
[3] Unenriched, but with 4 percent milk solids.
[4] Recipe given in appendix table 26.
[5] Gelatin was hydrolyzed with fresh pineapple juice or papain.
[6] Uncooked weight.

Table 24.—*Amounts of foods in the daily menus for each 6-day metabolic period in the 1957 study (diets 6 and 7)*

Day and meals [1]	Diet 6 [2]	Diet 7 [2]
Day 1:	*Grams*	*Grams*
Breakfast:		
Pineapple, juice (frozen)	120	120
Cornflakes, enriched	13	25
Sugar, dark brown	20	20
Apple jelly	20	20
Bread A [3]	20	--------
Bread B [3]	--------	20
Margarine	10	10
Milk	220	310
Snack:		
Ade, powder base	15	15
Sugar	17	17
Cracker, graham	14	14
Fondant, fortified [3]	20	--------
Fondant, plain [3]	--------	20
Lunch:		
Tomato soup, condensed	60	60
Tuna fish (oil pack)	20	20
Mayonnaise	15	15
Lettuce	15	15
Applesauce, canned	100	100
Bread A [3]	40	--------
Bread B [3]	--------	40
Milk	220	240
Snack:		
Ade, powder base	15	15
Sugar	17	17
Raisins	25	25
Fondant, plain [3]	20	20
Dinner:		
Ham, baked	15	20
Potato, boiled	50	50
Broccoli (frozen)	30	50
Gingerbread (mix)	25	40
Fondant, brown sugar [3]	30	30
Margarine	20	20
Ade, powder base	15	15
Sugar	16	16
Day 2:		
Breakfast:		
Orange juice (frozen)	120	120
Rice Krispies, enriched	28	28
Sugar, dark brown	20	20
Bread A [3]	20	--------
Bread B [3]	--------	20
Margarine	10	10
Milk	220	310
Snack:		
Ade, powder base	15	15
Sugar	17	17
Fondant, fortified [3]	20	--------
Fondant, plain [3]	--------	20
Lunch:		
Prune juice, canned	100	100
Cheese food	15	15
Mayonnaise	15	15
Lettuce	15	15
Peaches, canned	70	70
Bread A [3]	40	--------
Bread B [3]	--------	40
Milk	220	240
Snack:		
Ade, powder base	15	15
Sugar	17	17
Cookies, molasses [3]	15	15
Fondant, brown sugar [3]	30	30
Day 2—Continued	*Grams*	*Grams*
Dinner		
Fondant, plain [3]	20	20
Beef, ground	15	30
Potato, boiled	15	--------
Peas, green (frozen)	40	50
Ice cream, vanilla	50	50
Margarine	20	20
Ade, powder base	15	15
Sugar	16	16
Day 3:		
Breakfast:		
Orange juice (frozen)	120	120
Puffed wheat, enriched	12	12
Sugar, dark brown	20	20
Apple butter	20	20
Bread A [3]	20	--------
Bread B [3]	--------	20
Margarine	10	10
Milk	220	310
Snack:		
Ade, powder base	15	15
Sugar	17	17
Raisins	25	25
Fondant, fortified [3]	20	--------
Fondant, plain [3]	--------	20
Lunch:		
Bouillon cube	4	4
Liver sausage	15	15
Margarine	10	10
Lettuce	15	15
Pears, canned	117	117
Cookies, molasses [3]	15	15
Bread A [3]	40	--------
Bread B [3]	--------	40
Milk	220	220
Snack:		
Ade, powder base	15	15
Sugar	17	17
Cookie, sugar	30	30
Fondant, brown sugar [3]	30	30
Fondant, plain [3]	20	20
Dinner:		
Beef roast	15	25
Rice, converted	15	--------
Gravy, drippings	20	20
Potato, boiled	50	50
Cabbage, raw	50	50
Mayonnaise	15	15
Ice cream, vanilla	50	50
Chocolate syrup	30	30
Margarine	10	10
Ade, powder base	15	15
Sugar	16	16
Day 4:		
Breakfast:		
Orange juice (frozen)	120	120
Rice Chex, enriched	28	28
Sugar, dark brown	20	20
Grape jelly	30	30
Bread A [3]	20	--------
Bread B [3]	--------	20
Margarine	10	10
Milk	220	310
Snack:		
Ade, powder base	15	15
Sugar	17	17
Crackers, graham	14	14

See footnotes at end of table, p. 162.

TABLE 24.—*Amounts of foods in the daily menus for each 6-day metabolic period in the 1957 study (diets 6 and 7)*—Continued

Day and meals [1]	Diet 6 [2]	Diet 7 [2]
Day 4—Continued		
Snack—Cont.	*Grams*	*Grams*
Fondant, fortified [3]	20	--------
Fondant, plain [3]	--------	40
Lunch:		
Cheese food	15	20
Mayonnaise	15	15
Lettuce	15	15
Plums, canned	100	100
Bread A [3]	40	--------
Bread B [3]	--------	40
Milk	220	240
Snack:		
Ade, powder base	15	15
Sugar	17	17
Fondant, brown sugar [3]	30	30
Fondant, plain [3]	20	20
Dinner:		
Pork loin roast	20	30
Rice, converted	50	50
Beans, snap	40	40
Apricots, canned	100	100
Dates	20	20
Margarine	20	20
Ade, powder base	15	15
Sugar	16	16
Day 5:		
Breakfast:		
Orange juice (frozen)	50	50
Pineapple juice (frozen)	120	120
Rice Krispies, enriched	28	28
Sugar, dark brown	20	20
Bread A [3]	20	--------
Bread B [3]	--------	20
Margarine	10	10
Milk	220	310
Snack:		
Ade, powder base	15	15
Sugar	17	17
Fondant, fortified [3]	20	--------
Fondant, plain [3]	--------	40
Lunch:		
Tomato soup, condensed	60	60
Salmon	15	20
Mayonnaise	15	15
Lettuce	15	15
Peaches, canned	70	70
Cookies, molasses [3]	15	15
Bread A [3]	40	--------
Bread B [3]	--------	40
Milk	220	240
Snack:		
Ade, powder base	15	15
Sugar	17	17
Raisins	25	25
Fondant, plain [3]	20	20
Dinner:		
Beef roast	10	20
Day 5—Continued		
Dinner—Cont.	*Grams*	*Grams*
Potato, boiled	65	50
Asparagus, green, canned	50	50
Gingerbread (mix)	40	40
Fondant, brown sugar [3]	30	30
Margarine	20	20
Ade, powder base	15	15
Sugar	16	16
Day 6:		
Breakfast:		
Orange juice (frozen)	120	120
Cornflakes, enriched	25	25
Sugar, dark brown	20	20
Apple butter	20	20
Bread A [3]	20	--------
Bread B [3]	--------	20
Margarine	10	10
Milk	220	310
Snack:		
Ade, powder base	15	15
Sugar	17	17
Raisins	25	25
Fondant, fortified [3]	20	--------
Fondant, plain [3]	--------	40
Lunch:		
Bouillon cube	4	4
Bologna	20	25
Mayonnaise	15	15
Lettuce	15	15
Carrots, raw	40	40
Pears, canned	117	117
Cookie, coconut	10	10
Bread A [3]	40	--------
Bread B [3]	--------	40
Milk	220	240
Snack:		
Ade, powder base	15	15
Sugar	17	17
Fondant, brown sugar [3]	30	30
Fondant, plain [3]	20	20
Dinner:		
Pork loin roast	20	40
Rice, converted	100	100
Beans, snap	85	85
Margarine	20	20
Yellow cake (mix)	30	30
Margarine	10	10
Ade, powder base	15	15
Sugar	16	16

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[1] All milk was whole, homogenized, fortified with vitamin D.

[2] Weights given as served; original state as purchased given in parentheses in first column.

[3] Recipe given in appendix table 26.

TABLE 25.—*Amounts of foods in the daily menus for each 6-day metabolic period in the 1958 study (diets 8 and 8')*

Day and meals [1]	Diets 8 and 8' [2]
Day 1:	
Breakfast:	*Grams*
Orange juice (frozen)	120
Puffed rice, enriched	14
Sugar, brown	20
Apple butter	20
Margarine	10
Bread, fortified [3]	20
Coffee cream [4] 80 g., water 40 g	120
Snack:	
Kool Aid	5
Sugar, brown	14
Sugar	10
Crackers, graham	7
Fondant, plain [3]	20
Lunch:	
Bread, fortified [3]	40
Mayonnaise	15
Lettuce	15
Margarine	10
Liver Cheese	10
Milk	120
Apricots, canned	100
Kool Aid	5
Sugar, brown	14
Sugar	10
Snack:	
Cookie, molasses, fortified [3]	15
Kool Aid	5
Sugar, brown	14
Sugar	10
Fondant, plain [3]	20
Dinner:	
Beef roast	10
Potato, boiled	65
Squash, summer (frozen)	50
Cake, plain (mix), fortified [3]	50
Margarine	20
Kool Aid	5
Sugar, brown	13
Sugar	10
Snack:	
Fondant, plain [3]	20
Day 2:	
Breakfast:	
Orange juice (frozen)	120
Rice Krispies, enriched	16
Sugar, brown	20
Apple butter	20
Margarine	10
Bread, fortified [3]	20
Coffee cream [4] 80 g., water 40 g	120
Snack:	
Kool Aid	5
Sugar, brown	14
Sugar	10
Cookie, applesauce, fortified [3]	15
Fondant, plain [3]	20
Lunch:	
Prune juice, canned	100
Bread, fortified [3]	40
Mayonnaise	15
Lettuce	15
Margarine	10
Pineapple, sliced, canned	50
Carrot, raw	5
Milk	120
Peaches, canned	70
Day 2—Continued	
Lunch—Continued	*Grams*
Kool Aid	5
Sugar, brown	14
Sugar	10
Snack:	
Kool Aid	5
Sugar, brown	14
Sugar	10
Fondant, plain [3]	20
Dinner:	
Beef, ground	15
Potato, boiled	65
Asparagus, green, canned	50
Tapioca, grape juice, fortified [3]	100
Margarine	20
Kool Aid	5
Sugar, brown	13
Sugar	10
Snack:	
Fondant, plain [3]	20
Day 3:	
Breakfast:	
Pineapple juice (frozen)	80
Orange juice (frozen)	40
Rice Chex	28
Sugar, brown	20
Coffee cream [4] 80 g., water 40 g	120
Grape jelly	20
Margarine	10
Bread, fortified [3]	20
Snack:	
Kool Aid	5
Sugar, brown	14
Sugar	10
Cracker, graham	7
Fondant, plain [3]	20
Lunch:	
Bread, fortified [3]	40
Mayonnaise	5
Lettuce	15
Banana	50
Milk	120
Plums, canned	100
Margarine	10
Kool Aid	5
Sugar, brown	14
Sugar	10
Snack:	
Kool Aid	5
Sugar, brown	14
Sugar	10
Fondant, plain [3]	20
Dinner:	
Tomato catsup	10
Beef, ground	10
Rice, converted	70
Cabbage, raw	50
Carrot, raw	5
Mayonnaise	10
Beans, snap (frozen)	30
Pears, canned	100
Margarine	20
Kool Aid	5
Sugar, brown	13
Sugar	10
Snack:	
Fondant, plain [3]	20

See footnotes at end of table, p. 164.

TABLE 25.—*Amounts of foods in the daily menus for each 6-day metabolic period in the 1958 study (diets 8 and 8′)*—Continued

Day and meals [1]	Diets 8 and 8′ [2]
Day 4:	
Breakfast:	*Grams*
Pineapple juice (frozen)	80
Orange juice (frozen)	40
Cornflakes, enriched	13
Sugar, brown	20
Coffee cream [4] 80 g., water 40 g	120
Apple jelly	20
Margarine	10
Bread, fortified [3]	20
Snack:	
Kool Aid	5
Sugar, brown	14
Sugar	10
Raisins	20
Fondant, plain [3]	20
Lunch:	
Asparagus soup, condensed	60
Bread, fortified [3]	40
Margarine	20
Mayonnaise	15
Lettuce	15
Tomato, raw	40
Milk	120
Applesauce, canned	100
Kool Aid	5
Sugar, brown	14
Sugar	10
Snack:	
Kool Aid	5
Sugar, brown	14
Sugar	10
Fondant, plain [3]	20
Dinner:	
Ham, baked	15
Potato, boiled	65
Broccoli (frozen)	25
Tapioca, pineapple, fortified [3]	100
Margarine	10
Kool Aid	5
Sugar, brown	13
Sugar	10
Snack:	
Fondant, plain [3]	20
Day 5:	
Breakfast:	
Pineapple juice (frozen)	120
Orange juice (frozen)	40
Rice Krispies, enriched	16
Sugar, brown	20
Coffee cream [4] 80 g., water 40 g	120
Strawberry jelly	20
Margarine	10
Bread, fortified [3]	20
Snack:	
Kool Aid	5
Sugar, brown	14
Sugar	10
Cookie, molasses, fortified [3]	15
Fondant, plain [3]	20
Lunch:	
Tomato soup, condensed	60
Bread, fortified [3]	40
Margarine	20
Mayonnaise	15
Lettuce	15
Pineapple, sliced, canned	50
Milk	120
Peaches, canned	70
Kool Aid	5
Sugar, brown	14
Sugar	10
Day 5—Continued	
Snack:	*Grams*
Kool Aid	5
Sugar, brown	14
Sugar	10
Fondant, plain [3]	20
Dinner:	
Beef roast	15
Potato, boiled	65
Beans, snap (frozen)	50
Sherbet, raspberry, fortified [3]	100
Margarine	10
Kool Aid	5
Sugar, brown	13
Sugar	10
Snack:	
Fondant, plain [3]	20
Day 6:	
Breakfast:	
Orange juice (frozen)	120
Cornflakes, enriched	13
Sugar, brown	20
Coffee cream [4] 80 g., water 40 g	120
Black raspberry jelly	20
Margarine	10
Bread, fortified [3]	20
Snack:	
Kool Aid	5
Sugar, brown	14
Sugar	10
Raisins	20
Fondant, plain [3]	20
Lunch:	
Celery soup, condensed	60
Bread, fortified [3]	40
Margarine	20
Mayonnaise	15
Lettuce	15
Tomato, raw	40
Milk	120
Pears, canned	100
Kool Aid	5
Sugar, brown	14
Sugar	10
Snack:	
Kool Aid	5
Sugar, brown	14
Sugar	10
Fondant, plain [3]	20
Dinner:	
Pork loin roast	15
Potato, boiled	50
Carrots, raw	5
Apples, cinnamon [3]	100
Sherbet, banana, fortified [3]	100
Margarine	10
Kool Aid	5
Sugar, brown	13
Sugar	10
Snack:	
Fondant, plain [3]	20

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[1] Foods were fed in all periods in the amounts indicated except for milk and fondant. See p. 7.

[2] Weights given as served; original state as purchased given in parentheses in first column.

[3] Recipe given in appendix table 26.

[4] Drisdol added to provide 400 I.U. of vitamin D per subject per day.

TABLE 26.—*Recipes used in food preparation for the controlled diets in the 4 metabolic studies*

1954 STUDY

Food products	Ingredients	Amount	Method
Mashed potatoes	Potatoes boiled	600 g.	Place ingredients in mixer and whip until smooth.
	Milk	144 g.	
	Margarine	60 g.	
	Salt		
Baked custard	Egg	144 g.	Mix ingredients, weigh into individual containers, bake, chill, and serve.
	Milk	732 g.	
	Brown sugar	75 g.	
	Vanilla	1 tsp.	
	Salt	¼ tsp.	
Molasses cookies	Shortening (Crisco)	100 g.	Cream shortening and sugar, add egg, molasses, and liquid. Add remaining dry ingredients sifted together. Beat well. Weigh out 18-g. portions on buttered cookie sheet. Bake about 10 minutes (until brown) at 375° F.
	Brown sugar	75 g.	
	Egg	54 g.	
	Molasses	164 g.	
	Flour, cake	200 g.	
	Salt	2 g.	
	Ginger	2 g.	
	Cinnamon	2 g.	
	Cloves	2 g.	
	Soda	5 g.	
	Water	60 g.	
Brown sugar icing for spice cake.	Confectioner's sugar	224 g.	Melt margarine. Add brown sugar. Boil over low heat for 2 minutes, stirring constantly. Stir in milk and bring to a boil. Cool to lukewarm and add confectioner's sugar. Beat until thick enough to spread. If icing becomes too stiff, add a little hot water.
	Brown sugar	220 g.	
	Margarine	112 g.	
	Milk	60 g.	
Icing for angel food cake.	Confectioner's sugar	144 g.	Place ingredients in mixer and beat until smooth.
	Margarine	28 g.	
	Lemon juice	15 g.	
1956 STUDY			
Hard sauce	Margarine	226 g.	Cream the margarine. Gradually add other ingredients in order given, stir until creamy, and chill well.
	Boiling water	2 tbsp.	
	Confectioner's sugar	530 g.	
	Vanilla	1 tsp.	
Molasses cookies			See molasses cookies recipe for 1954 study.

TABLE 26.—*Recipes used in food preparation for the controlled diets in the 4 metabolic studies*—Continued

1957 STUDY

Food products	Ingredients	Amount	Method
Bread A (diet 6)	Flour Sugar Salt Dried milk solids Malt, dry Yeast Shortening (vegetable) $Ca(H_2PO_4)_2$[1] $FePO_4 \cdot 4H_2O$ Thiamine hydrochloride Riboflavin Niacinamide	50 lb. 3 lb. 1 lb. 3 lb. 1 lb. 2 lb. 2.5 lb. 250 g. 6 g. .20 g. .35 g. 2.00 g.	Usual commercial methods were used.
Bread B (diet 7)	Flour Sugar Salt Dried milk solids Malt, dry Yeast Shortening (vegetable) $Ca(H_2PO_4)_2$[1] $FePO_4 \cdot 4H_2O$ Thiamine hydrochloride Riboflavin Niacinamide	50 lb. 3 lb. 1 lb. 3 lb. 1 lb. 2 lb. 2.5 lb. 250 g. 5 g. .15 g. -------------- 1.60 g.	Usual commercial methods were used.
Molasses cookies	------------------------	--------------	See molasses cookie recipe for 1954 study.
Fondant plain	Confectioner's sugar Margarine, unfortified[2] Water Artificial flavoring	908 g. 226 g. 5 tbsp. 3–4 drops.	Mix, package, and store until time of use.
Fondant, brown sugar	------------------------	--------------	Substitute brown sugar for confectioner's sugar in recipe for plain fondant.
Fondant, fortified	------------------------	--------------	Add 40.5g. $Ca(H_2PO_4)_2$ to recipe for plain fondant.[1]

See footnotes at end of table, p. 167.

TABLE 26.—*Recipes used in food preparation for the controlled diets in the 4 metabolic studies*—Continued

1958 STUDY

Food products	Ingredients	Amount	Method
Bread, fortified	Flour Sugar Salt Malt, dry Yeast Shortening (vegetable) $Ca(H_2PO_4)_2$[1] $FePO_4 \cdot 4H_2O$ Thiamine hydrochloride Riboflavin Niacinamide Flour (mix with mineral salts and vitamins).	250 lb. 15 lb. 5 lb. 5 lb. 10 lb. 12.5 lb. 1,300 g. 31.5 g. 1.5 g. 2.0 g. 10.0 g. 655 g.	Usual commercial methods were used.
Fondant, plain			Substitute Crisco for the unfortified margarine in recipe for plain fondant, 1957 study.
Applesauce cookies	Shortening (Crisco) Brown sugar Applesauce, sweetened Soda Flour, cake Salt Cinnamon Cloves $Ca(H_2PO_4)_2$[1]	100 g. 220 g. 254 g. 5 g. 200 g. 2 g. 4 g. 2 g. 1.5 g.	Cream shortening and sugar together. Add applesauce and blend into mixture. Sift flour, measure, and then add soda, salt, and spices. Sift again. Add sifted dry ingredients to applesauce mixture and stir until smooth. Weigh out 18-g. portions and bake at 375° F. for approximately 12 minutes (until brown).
Molasses cookies, fortified.			Add 1 g. $Ca(H_2PO_4)_2$ to recipe for molasses cookies, 1954 study.[1]
Plain cake, fortified	Yellow cake mix (Pillsbury). $Ca(H_2PO_4)_2$[1] Water	900 g. 8 g. 550 g.	Combine cake mix and $Ca(H_2PO_4)_2$. Add water and blend in a mixer. Distribute batter into two square 8-inch pans. Bake according to instructions on package. Weigh individual portions and serve warm (with margarine).
Grape juice tapioca	Sugar Water Minute tapioca $Ca(H_2PO_4)_2$[1] Lemon juice Grape juice	300 g. 1,200 g. 227.5 g. 8 g. 120 g. 485 g.	Combine sugar and water in a large saucepan and heat until sugar is dissolved. Thoroughly mix tapioca and $Ca(H_2PO_4)_2$. Add to hot mixture and blend well. Cook until clear. Add juices and continue cooking for 3 minutes. Cover to prevent evaporation. Chill and weigh portions.
Pineapple tapioca	Minute tapioca Brown sugar Salt $Ca(H_2PO_4)_2$[1] Water Pineapple, crushed (canned), drained. Lemon juice	114 g. 300 g. 6 g. 12 g. 1,800 g. 600 g. 90 g.	Mix dry ingredients in a large saucepan. Add water. Cook over low heat, stirring constantly, until the mixture boils. Remove from heat. Add pineapple and lemon juice. Cover to prevent evaporation. Chill and weigh portions.
Sherbet	Sugar Gelatin $Ca(H_2PO_4)_2$[1] Water Citric acid	14.5 lb. 4 oz. 120.5 g. 5 gal. 8 oz.	Mix ingredients thoroughly and freeze.
Cinnamon apples	Cinnamon candy Apples, sliced (canned), drained.	125 g. 2,500 g.	Add cinnamon candy to apples. Heat in Pyrex saucepan until candy is dissolved and the apples are red. Weigh individual portions and serve (with margarine).

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[1] $Ca(H_2PO_4)_2$ furnished as V-90, a commercial mineral preparation commonly used in bakeries.

[2] A special product prepared without milk solids or fortification with vitamin A.

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